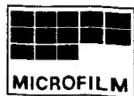
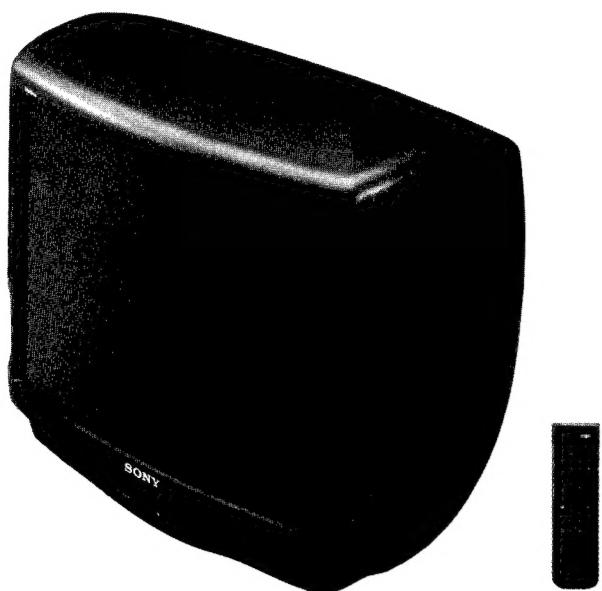


SERVICE MANUAL

AE-2 CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-B2511A	RM-830	Italian	SCC-F18F-A	KV-B2513E	RM-830	Spanish	SCC-F33F-A
KV-B2511B	RM-830	French	SCC-F32M-A	KV-B2511K	RM-830	OIRT	SCC-F72A-A
KV-B2511D	RM-830	AEP	SCC-F26F-A	KV-B2512U	RM-830	UK	SCC-F25D-A



TRINITRON® COLOR TV
SONY®

ITEM MODEL	Television system	Stereo system	Channnel coverage	Color system
Italian	B/G/H, D/K	GERMAN Stereo	ITALIA VHF:A-H2 (C) UHF:21-69 PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC 4.43, NTSC 3.58 (VIDEO IN)
French	B/G/H, D/K L, I	GERMAN Stereo	L VHF:F02-F10 UHF:F21-F60 CABLE:B-Q B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69 I UHF:B21-B69	PAL, SECAM NTSC 4.43, NTSC 3.58 (VIDEO IN)
AEP	B/G/H, D/K	GERMAN Stereo	PAL B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC 4.43, NTSC 3.58 (VIDEO IN)
Spanish	B/G/H, D/K	GERMAN/NICAM Stereo	PAL B/G VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 CABLE TV (2):S01-S05, M1-M10, U1-U10 ITALIA VHF:A-H2 (C) UHF:21-69 D/K VHF:R01-R12 UHF:R21-R69	PAL, SECAM NTSC 4.43, NTSC 3.58 (VIDEO IN)
OIRT	B/G/H, D/K	GERMAN Stereo	B/G/H VHF:E2-E12 UHF:E21-E69 CABLE TV (1):S1-S41 D/K VHF:R1-R12 UHF:R21-R60	PAL, SECAM NTSC 4.43, NTSC 3.58 (VIDEO IN)
UK	I	NICAM Stereo	UHF:B21-B69	PAL SECAM, NTSC 4.43 NTSC 3.58 (VIDEO IN)

MODEL	Italian	French	AEP	Spanish	OIRT	UK
Power consumption	104 Wh	101 Wh	101 Wh	102.5 Wh	100 Wh	151 Wh

Picture tube Hi-Black Trinitron
 Approx. 63 cm
 (Approx. 59 cm picture measured
 diagonally)
 110 ° -deflection

【REAR】
 - 1 21-pin Euro connector
 (CENELEC standard)
 Inputs for audio and video signals
 • inputs for RGB
 • outputs of TV video and audio signals
 - 2 21-pin Euro connector
 • inputs for audio and video signals
 • inputs for S video
 • outputs for audio and video signals
 (selectable)
 - Audio inputs (variable) -phono jacks

【FRONT】
 - 3 Video input-phono jack
 - Audio input-phono jacks
 - 3 S video input 4-pin DIN
 Headphone jack : Stereo minijack

Sound output	2×15 (RMS) 2×30 (Music)
Power requirement	220-240 V
Dimensions	Approx.663 x 506 x 507 mm
Weight	Approx.35.5 kg
Supplied accessories	RM-830 Remote Commander (1) IEC designation R 6 batteries (2)

【RM-830】
 Remote control system infrared control
 Power requirements 3 V dc
 2 batteries IEC designation
 R 6 (size AA)
 Dimensions Approx.65×225×21 mm (w/h/d)
 Weight Approx.157g (Not including Batteries)

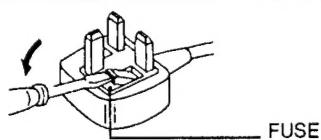
Model name Item	KV-B2511A	KV-B 2511 B	KV-B 2511 D	KV-B 2513 E	KV-B2511K	KV-B 2512 U
Pal Comb	OFF	OFF	OFF	OFF	OFF	OFF
PiP	OFF	OFF	OFF	OFF	OFF	OFF
RGB Priority	ON	OFF	OFF	OFF	OFF	OFF
Woofer Box	OFF	OFF	OFF	OFF	OFF	OFF
Scart 1	ON	ON	ON	ON	ON	ON
Scart 2	ON	ON	ON	ON	ON	ON
Front in (3)	ON	ON	ON	ON	ON	ON
Scart 4	OFF	OFF	OFF	OFF	OFF	OFF
Dyn. Convergence	OFF	OFF	OFF	OFF	OFF	OFF
Projector	OFF	OFF	OFF	OFF	OFF	OFF
AKB in 16:9 mode	ON	ON	ON	ON	ON	ON
Norm B/G	ON	ON	ON	ON	ON	OFF
Norm I	OFF	ON	OFF	OFF	OFF	ON
Norm D/K	ON	ON	ON	ON	ON	OFF
Norm AUS	OFF	OFF	OFF	OFF	OFF	OFF
Norm L	OFF	ON	OFF	OFF	OFF	OFF
Norm SAT	OFF	OFF	OFF	OFF	OFF	OFF
Norm M	OFF	OFF	OFF	OFF	OFF	OFF
Language Preset	Italiano	Francais	Deutsch	None	English	English

Warning (UK Model only)

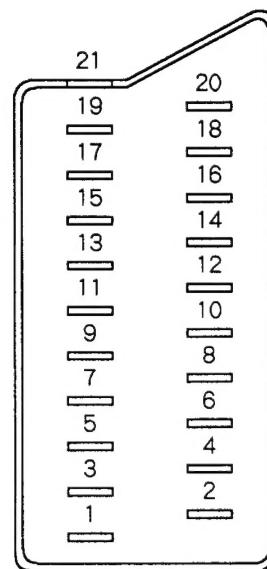
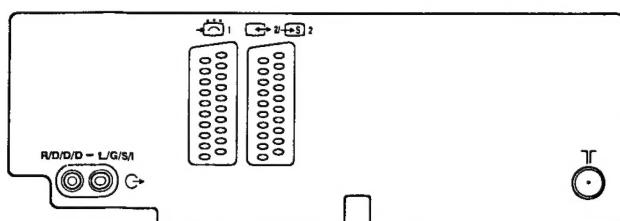
The flexible mains lead is supplied connected to a B.S. 1363 fused plug having a fuse of 5 amp capacity. Should the fuse need to be replaced, use 5 AMP FUSE approved by ASTA to BS 1362, ie. carries the  mark.

IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR YOUR SOCKET OUTLETS IN YOUR HOME. IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET OUTLET.

When an alternative type of plug is used it should be fitted with a 5 AMP FUSE, otherwise the circuit should be protected by a 5 AMP FUSE at the distribution board.



21 pin connector (Pin 1 ⊕ 2 / ⊕ 4)



Pin No	1	2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level : 0.5Vrms Output impedance : Less than 1kohm *
2	○	○	Audio input B (right)	Standard level : 0.5Vrms Input impedance : More than 10kohms *
3	○	○	Audio output A (left)	Standard level : 0.5Vrms Output impedance : Less than 1kohm *
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level : 0.5Vrms Input impedance : More than 10kohms *
7	○	●	Blue input	0.7 ± 3dB, 75ohms, positive
8	○	○	Function select (AV control)	High state (9.5 – 12V) : Part mode Low state (0 – 2V) : TV mode Input impedance : More than 10kohms Input capacitance : Less than 2nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green	Green signal : 0.7V ± 3dB, 75ohms, positive
12	○	○	Open	
13	○	○	Ground (red)	
14	○	○	Ground (blanking)	
15	○	-	Red input	0.7V ± 3dB, 75ohms, positive
	-	○	(S signal) chroma input	0.3V ± 3dB, 75ohms, positive
16	○	●	Blanking input (Ys signal)	High state (1 – 3V) Low state (0 – 0.4V) Input impedance : 75ohms
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1V ± 3dB, 75ohms, positive Sync : 0.3V (-3, +10dB)
20	○	-	Video input	1V ± 3dB, 75ohms, positive Sync : 0.3V (-3, +10dB)
	-	○	Video Input/Y (S signal)	1V ± 3dB, 75ohms, positive Sync : 0.3V (-3, +10dB)
21	○	○	Common ground (plug, shield)	

○ Connected ● unconnected (open) * at 20Hz – 20kHz

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CAUTION

**SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE
AND THE ANODE CAP TO THE METAL CHASSIS, CRT
SHIELD, OR CARBON PAINTED ON THE CRT, AFTER
REMOVING THE ANODE.**

WARNING !!

**AN ISOLATION TRANSFORMER SHOULD BE USED
DURING ANY SERVICE TO AVOID POSSIBLE SHOCK
HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CON-
NECTED TO THE AC POWER LINE.**

SAFETY-RELATED COMPONENT WARNING!!

**COMPONENTS IDENTIFIED BY SHADING AND MARK Δ
ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS
AND, IN THE PARTS LIST ARE CRITICAL FOR SAFE
OPERATION. REPLACE THESE COMPONENTS WITH
SONY PARTS WHOSE PART NUMBERS APPEAR AS
SHOWN IN THIS MANUAL OR IN SUPPLEMENTS
PUBLISHED BY SONY.**

ATTENTION

**APRES AVOIR DECONNECTE LE CAP DE L'ANODE,
COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE
ET CELUI DE L'ANODE DU CAP AU CHASSIS
METALLIQUE DE L'APPAREIL, OU AU COUCHE DE
CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU
BLINDAGE DU TUBE CATHODIQUE.**

ATTENTION!!

**AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION
PROVENANT D'UN CHÂSSIS SOUS TENSION, UN
TRANSFORMATEUR D'ISOLEMENT DOIT ÊTRE
UTILISÉ LORS DE TOUT DÉPANNAGE.
LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT
RACCORDE À L'ALIMENTATION SECTEUR.**

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

**LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET
PAR UNE MARQUE Δ SUR LES SCHÉMAS DE
PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE
PIÈCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA
SÉCURITÉ DU FonCTIONNEMENT. NE LES REM-
PLACER QUE PAR DES COMPOSANTS SONY DONT LE
NUMÉRO DE PIÈCE EST INDICUÉ DANS LE PRÉSENT
MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR
SONY.**

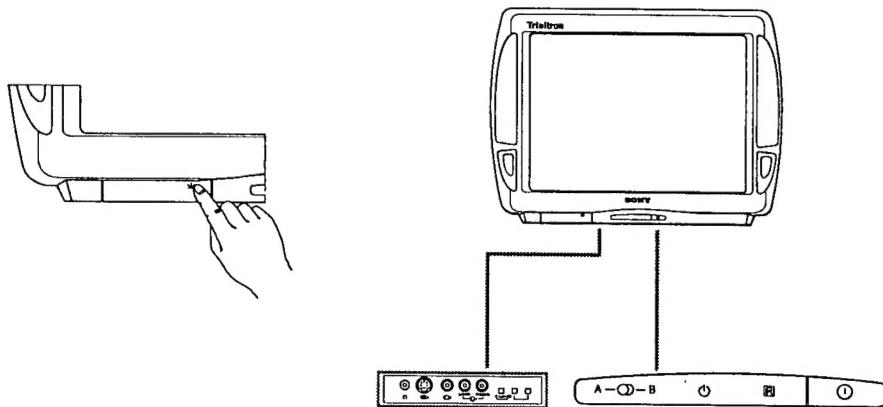
SECTION 1 GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

1-1. OVERVIEW

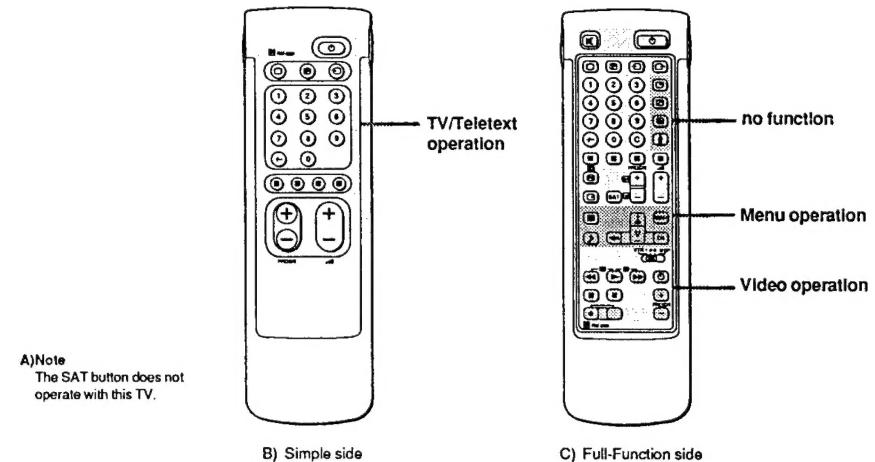
This section briefly describes the buttons and controls on the TV set and on the Remote Commander. For more information, refer to the pages given next to each description.

TV set-front



Symbol	Name	Refer to page
①	4.6 Main power switch	13
②	4.7 Standby indicator	13
A-CD-B	4.8 Stereo A/B indicators	15
Ω	4.9 Headphones jack	20
-③, -④ 3, -⑤ 3,	4.10 Input jacks (S video/video/audio)	20
⑥-⑦-⑧	4.11 Function selector (Programme/volume/input)	14
⑨-⑩	4.13 Adjustment buttons for function selector	14

Remote Commander RM-830



TV/Teletext operation

Symbol	Name	Refer to page
◀	Muting on/off button	14
○	Standby button	13
□	TV power on/TV mode selector button	13
■	Teletext button	14
-□-	Input mode selector	14
□+	Output mode selector	21
1,2,3,4,5,6, 7,8,9, and 0	Number buttons	13
-/-	Double-digit entering button	13
C	Direct channel entering button	10
△+/-	Volume control button	13
PROGR +/-	Programme selectors	13
⑪⑫	Teletext page access buttons	17
■	Picture adjustment button	15
♪	Sound adjustment button	15
□	On-screen display button	14
■	Teletext hold button	17
□■■■	Time display button	14
■■■■■	Fastext TOP-text buttons	17

Menu operation

Symbol	Name	Refer to page
MENU	Menu on/off button	7
△+▽-	Select buttons	7
OK	OK (confirming) button	7
←	Back button	7

Video operation

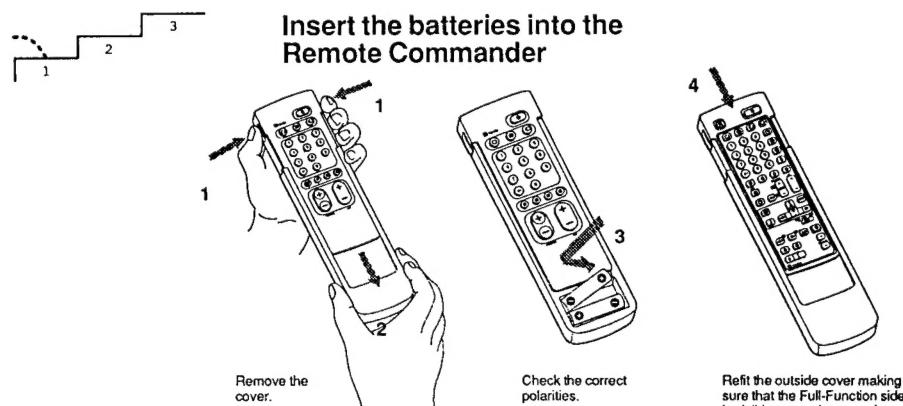
Symbol	Name	Refer to page
VTR1/2/3, MOP	Video equipment selector	22
◀▶▶▶	Video equipment operation buttons	22

Note:

The buttons □, ↑, ▶, ▷ do not operate with this TV.

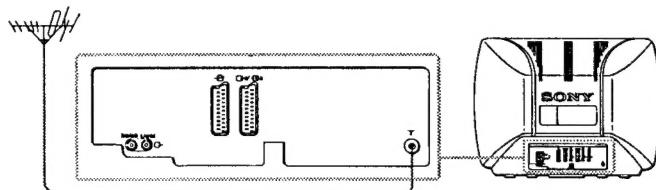
Getting Started

1-2. STEP 1 PREPARATION



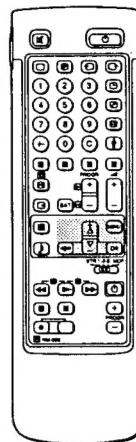
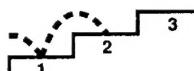
1-3. STEP 2 CONNECTION

Connect the aerial



Fit an IEC aerial connector attached to 75-ohm coaxial cable (not supplied) to the **T** socket at the rear of the TV.
Make sure to use an aerial cable, which corresponds to the relevant regulations.

1-4. STEP 3 TUNING IN TO TV STATIONS

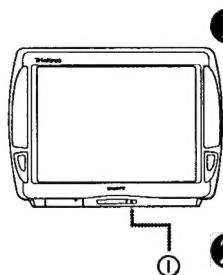


Once you have set up the TV, you can choose the language of the menu. Then you should preset the channels (up to 100 channels) by choosing either the automatic or manual method.

The automatic method is easier if you want to preset all receivable channels at once. Use the manual method if you only have a few channels and want to preset channels one by one. The manual method is also convenient for allocating programme numbers to various video input sources.

Before you begin

- Check that the Full-Function side of the Remote Commander is visible.
- Locate Menu operation buttons on the Remote Commander. They are shaded in the illustration at the left.



1

Choose a language

- Depress **On** on the TV. The TV will switch on. If the standby indicator on the TV is lit, press **□** or a number button on the Remote Commander.
- Press **MENU**. The LANGUAGE menu appears (see Fig. 1).
- Select the language you want with **△+** or **▽-** and press **OK**.



Fig. 1.

2

Display the Menu

- Press the **↔** button. The main menu appears (see Fig. 2). Now, choose one of the following methods
«Preset Channels automatically»
or
«Preset Channels manually».



Fig. 2.

With this method,
you can preset all
receivable channels
at once.

③

Preset channels automatically

- Select «Preset» with $\Delta+$ or $\nabla-$ and press OK. The PRESET menu appears. (See Fig.3.)
- Select «Auto Programme» with $\Delta+$ or $\nabla-$ and press OK. The AUTO PROGRAMME menu appears. (See Fig.4.)
- Press OK.
- Select if necessary the TV broadcast system (B/G for western European, D/K for eastern European countries) with $\Delta+$ or $\nabla-$ and press OK. The first element of the «PROG» number will be highlighted.
- Select the programme (number button) from which you want to start presetting. Select the first element of the double-digit number with $\Delta+$ or $\nabla-$ or the number buttons (e.g. For «04», select «0» here) and press OK. The second element of «PROG» will be highlighted.
- Select the second element of the double-digit number with $\Delta+$ or $\nabla-$ or the number buttons (e.g. For «04», select «4» here) (See Fig. 5.) and press OK.
- Select «C» or «S» with $\Delta+$ or $\nabla-$ and press OK. The automatic channel presetting starts. When presetting is finished, the PRESET menu reappears. All available channels are now stored on successive number buttons.



Fig. 3.



Fig. 4.

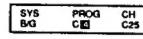


Fig. 5.

To tune in a
channel by
frequency
After selecting F in
step 6, enter three
digits using the
number buttons.

- Using $\Delta+$ or $\nabla-$, select the programme position (number button) to which you want to preset a channel, and press OK.

- Select if necessary, the TV broadcast system (B/G for western European countries, D/K for eastern European countries) or a video input source (EXT) with $\Delta+$ or $\nabla-$.

- Then press OK. The CH position will be highlighted. (See Fig. 8.)

- Using $\Delta+$ or $\nabla-$, select C (to preset a regular channel), or F (to tune in by frequency) and press OK. The first element of the «CH» number will be highlighted. If you have selected EXT in step 4, select the video input source with $\Delta+$ or $\nabla-$. (See Fig. 9.)

There are two ways to preset channels. If you know the channel number, go to step «7-Manual»,
or
if you don't know the channel number, go to step «7-Search».

7 Manual

- a Select the first element of the «CH» number with $\Delta+$ / $\nabla-$ or the number buttons and press OK. The second element of the «CH» number will be highlighted.

- b Select the second element of the number with $\Delta+$ / $\nabla-$ or the number buttons. The selected number appears. (See Fig. 10.)

- c Press OK. The «SEARCH» position is highlighted and the selected channel is now stored. (See Fig. 11.)

- d Press OK until the cursor appears by the next programme position.

- e Repeat steps 3 to 7 to preset other channels.

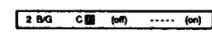


Fig. 8.

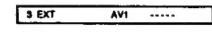


Fig. 9.

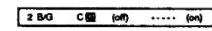


Fig. 10.

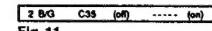


Fig. 11.

If you have made a
mistake
Press \leftarrow to go back
to the previous
position.

To go back to main
menu
Keep pressing \leftarrow .

To go back to the
normal TV picture
Press MENU.

- Press OK repeatedly until the colour of the SEARCH position changes.

- Start searching for the channel with $\Delta+$ (up) or $\nabla-$ (down). The CH position changes colour. (See Fig. 12.) The CH number starts counting up or downwards. When a channel is found, it stops. (See Fig. 13.)

- Press OK if you want to store this channel. If not, press $\Delta+$ or $\nabla-$ to continue channel searching.

- Press OK until the cursor appears by the next programme position.

- Repeat steps 3 to 7 to preset other channels.

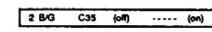


Fig. 12.

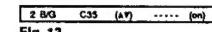


Fig. 13.

Use this method if
there are only a few
channels in your area
to preset or if you
want to preset
channels one by one.
You may also
allocate programme
numbers to various
video input sources.

③

Preset channels manually

- Select «Preset» with $\Delta+$ or $\nabla-$ and press OK. The PRESET menu appears. (See Fig.6.)
- Select «Manual Programme Preset» with $\Delta+$ or $\nabla-$ and press OK. The MANUAL PROGRAMME PRESET menu appears. (See Fig. 7.)

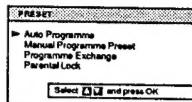
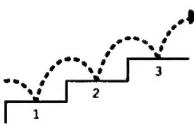


Fig. 6.

MANUAL PROGRAMME PRESET	
PROG SIS	CH SEARCH LABEN AFT
1 B/G	C21 (on)
2 B/G	C34 (off)
3 B/G	C35 (on)
4 B/G	C43 (off)
5 B/G	C35 (off)
6 B/G	C44 (on)
7 B/G	C37 (off)
8 B/G	C30 (off)
9 B/G	C35 (off)
10 B/G	C59 (on)

Fig. 7.

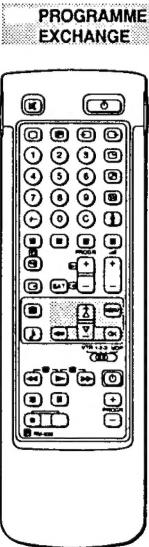
1-5. ADDITIONAL PRESETTING FUNCTIONS



This section shows you additional presetting functions such as exchanging or skipping programme positions, captioning a station name, manual fine-tuning, and using the parental lock.

Before you begin

- Check that the Full Function side of the Remote Commander is visible.
- Locate the Menu operation buttons.



For programme positions beyond 15
The display scrolls automatically.

If you have made a mistake
Press \leftarrow to go back to the previous position

To go back to main menu
Keep pressing \leftarrow .

To go back to the normal TV picture
Press MENU.

Exchanging Programme Positions

With this function, you can exchange the programme positions to a preferable order.

- Press MENU to display the main menu.
- Select "Preset" with $\Delta+$ or $\nabla-$ and press OK.
The PRESET menu appears.
- Select "Programme Exchange" with $\Delta+$ or $\nabla-$ and press OK.
The PROGRAMME EXCHANGE menu appears. (See Fig. 14.)
- Using $\Delta+$ or $\nabla-$, select the programme position you want to exchange with another and press OK.
The colour of the selected position changes. (See Fig. 15.)
- Using $\Delta+$ or $\nabla-$, select the programme position to be exchanged and press OK. Now the two programme positions have been exchanged. (See Fig. 16.)
- Repeat steps 4 and 5 to exchange other programme positions.

PROGRAMME EXCHANGE				
PROG CH	LABEL	PROG CH	LABEL	
► 0 AVI VHS	8 C29 SAT1			
1 ...	9 C30 RTL			
2 C28 DDF	10 ...			
3 C26 APD	11 ...			
4 ...	12 ...			
5 VIDEOMM	13 ...			
6 ...	14 ...			
7 ...	15 ...			

Fig. 14.

PROGRAMME EXCHANGE				
PROG CH	LABEL	PROG CH	LABEL	
0 AVI VHS	8 C29 SAT1			
1 ...	9 C30 RTL			
2 C28 DDF	10 ...			
3 C26 APD	11 ...			
4 ...	12 ...			
5 VIDEOMM	13 ...			
6 ...	14 ...			
7 ...	15 ...			

Fig. 15.

PROGRAMME EXCHANGE				
PROG CH	LABEL	PROG CH	LABEL	
0 AVI VHS	8 C29 SAT1			
1 ...	9 C30 RTL			
2 C28 DDF	10 ...			
3 C26 APD	11 ...			
4 ...	12 ...			
5 VIDEOMM	13 ...			
6 ...	14 ...			
7 ...	15 ...			

Fig. 16.

Tuning in a Channel Temporarily

You can tune in to a channel temporarily, even when it has not been preset. Use the buttons on the Full-Function side of the Remote Commander.

- Press C on the Remote Commander. For cable channels, press C twice.
The indication «C» («S» for cable channels) appears on the screen.
- Enter the double-digit channel number using the number buttons (e.g. for channel 4, first press 0, then 4).
The channel appears.
However, the channel will not be stored.

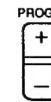
(C)

MANUAL PROGRAMME PRESET

Skipping Programme Positions

You can skip unused programme positions when selecting programmes with the PROGR +/- buttons. However, the skipped programmes may still be called up when you use the number buttons.

- Press MENU to display the main menu.
- Select «Preset» with $\Delta+$ or $\nabla-$ and press OK.
The PRESET menu appears.
- Select «Manual Programme Preset» with $\Delta+$ or $\nabla-$ and press OK.
The MANUAL PROGRAMME PRESET menu appears. (See Fig. 17.)
- Using $\Delta+$ or $\nabla-$, select the programme position which you want to skip and press OK.
The «SYS» position changes colour.
- Press $\Delta+$ or $\nabla-$ until «----» appears in the SYSTEM position. (See Fig. 18.)
- Press OK. (See Fig. 19.)
When you select programmes using the PROGR+/-buttons, the programme position will be skipped.
- Repeat steps 4 to 6 to skip other programme positions.



MANUAL PROGRAMME PRESET:				
PROG SYS	CH SEARCH	LABEL AFT		
► 1 BG	C21 (off)	..... (on)		
2 BG	C24 (off)	..... (on)		
3 BG	C25 (off)	..... (on)		
4 BG	C27 (off)	..... (on)		
5 BG	C28 (off)	..... (on)		
6 BG	C22 (off)	..... (on)		
7 BG	C23 (off)	..... (on)		
8 BG	C25 (off)	..... (on)		
9 BG	C28 (off)	..... (on)		
10 BG	C29 (off)	..... (on)		

Fig. 17.

3

Fig. 18.

3

Fig. 19.

Captioning a Station Name

You can «name» a channel or an input video source using up to five characters (letters or numbers) to be displayed on the TV screen (e.g. BBC1). Using this function, you can easily identify which channel or video source you are watching.

- Press MENU to display the main menu.
- Select «Preset» with $\Delta+$ or $\nabla-$ and press OK.
The PRESET menu appears.
- Select «Manual Programme Preset» with $\Delta+$ or $\nabla-$ and press OK.
The MANUAL PROGRAMME PRESET menu appears. (See Fig. 20.)
- Using $\Delta+$ or $\nabla-$, select the programme position you want to caption and press OK repeatedly until the first element of the LABEL position is highlighted.
- Select a letter or number with $\Delta+$ or $\nabla-$ and press OK.
The next element will be highlighted.
Select other characters in the same way. If you want to leave an element blank, select \leftarrow and press OK. (See Fig. 21.)
- After selecting all the characters, press OK repeatedly until the cursor appears by the next programme position (at the left margin).
Now the caption you chose is stored. (See Fig. 22.)
- Repeat steps 5 and 6 to caption names for other channels.

MANUAL PROGRAMME PRESET:				
PROG SYS	CH SEARCH	LABEL AFT		
► 1 BG	C21 (off)	..... (on)		
2 BG	C24 (off)	..... (on)		
3 BG	C25 (off)	..... (on)		
4 BG	C27 (off)	..... (on)		
5 BG	C28 (off)	..... (on)		
6 BG	C22 (off)	..... (on)		
7 BG	C26 (off)	..... (on)		
8 BG	C23 (off)	..... (on)		
9 BG	C25 (off)	..... (on)		
10 BG	C29 (off)	..... (on)		

Fig. 20.

2 BG C25 (off) S1

Fig. 21.

► 2 BG C25 (off) SONY-(on)

Fig. 22.

MANUAL PROGRAMME PRESET

To reactivate AFT (automatic fine tuning). Repeat from the beginning and select "ON" in step 5.

PARENTAL LOCK

If you try to select a programme that has been blocked The message "LOCKED" appears on the blank TV screen.

Manual Fine-Tuning

Normally, the AFT (automatic fine-tuning) is already operating. However, if the picture is distorted, you can use the manual fine tuning function to obtain better picture reception.

- 1 Press MENU to display the main menu.
- 2 Select "Preset" with $\Delta+$ or $\nabla-$ and press OK. The PRESET menu appears.
- 3 Select "Manual Programme Preset" with $\Delta+$ or $\nabla-$ and press OK. The MANUAL PROGRAMME PRESET menu appears. (See Fig. 23.)
- 4 Using $\Delta+$ or $\nabla-$, select the programme position corresponding to the channel which you want to manually fine-tune, and press OK repeatedly until the AFT position changes colour.
- 5 Fine-tune the channel with $\Delta+$ or $\nabla-$ so that you get the best TV reception. As you press the cursor buttons, the frequency changes from -15 to +15. (See Fig. 24.)
- 6 After fine tuning, press OK. The cursor appears beside the next programme position (at the left margin). (See Fig. 25.) Now the fine-tuned level is stored.
- 7 Repeat steps 4 to 6 to fine-tune other channels.

MANUAL PROGRAMME PRESET			
PROG	SYS	CH	SEARCH LABEL AFT
► 1	BG	C21	(off) ----- (on)
2	BG	C24	(off) ----- (on)
3	BG	C27	(off) ----- (on)
4	BG	C28	(off) ----- (on)
5	BG	C22	(off) ----- (on)
6	BG	C23	(off) ----- (on)
7	BG	C25	(off) ----- (on)
8	BG	C26	(off) ----- (on)
9	BG	C23	(off) ----- (on)
10	BG	C29	(off) ----- (on)

Fig. 23.

2	BG	C35	(off) ----- (-3)
---	----	-----	------------------

Fig. 24.

2	BG	C40	(off) ----- (-3)
= 3	BG	C41	(off) ----- (on)

Fig. 25.

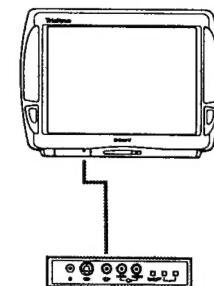
For details of the teletext operation, refer to page 17.

For details of the video input picture, refer to page 21.

Operating the TV Using the Buttons on the TV

With the buttons on the TV, you can select programmes, adjust the volume, and select video input sources.

- Press the Δ - ∇ - \rightarrow - \leftarrow button repeatedly until the programme number, Δ (for volume), or \square (for video input picture) appears. Then adjust with the \rightarrow - \leftarrow buttons.
- Press \rightarrow - \leftarrow buttons to switch on the TV from the standby mode.
- Press \rightarrow - \leftarrow simultaneously to reset picture and sound controls to the factory preset level (RESET function).



Watching Teletext or Video Input

Watching teletext

- Press \odot to view the teletext.
- Press three number buttons to select a page.
- Press one of the coloured buttons for fasttext or TOP-Text operation.
- Press \ominus (PAGE +) or \oplus (PAGE -) for the next or preceding page.
- To go back to the normal TV picture, press \square .

Watching a video Input picture

Press \square repeatedly until the desired video input appears. To go back to the normal TV picture, press \square .

More Convenient Functions

Use the Full-Function side of the Remote Commander.

Displaying the on screen indications

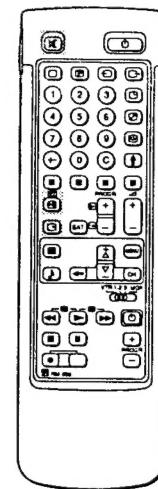
- Press \odot once to display all the indications. They will disappear after some seconds.
- Press \odot twice to have the programme number and label stay on screen. Press twice again to make the indications disappear.

Muting the sound

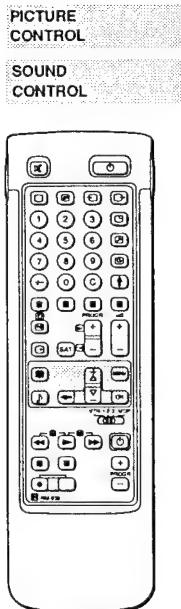
Press \times . To resume normal sound, press \times again.

Displaying the time

Press \odot . This function is available only when teletext is broadcast.
To make the time display disappear, press \odot again.



1-6. ADJUSTING AND SETTING THE TV USING THE MENU



If you have made a mistake
Press \leftarrow to go back to the previous position.

To go back to the main menu
Keep pressing \leftarrow .

To go back to the normal TV picture
Press MENU.

Note
HUE is only available for NTSC colour systems and RESOLUTION does not work for SECAM colour system.

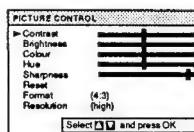
Note on LINE OUT
The audio level and the dual sound mode output from the G+ jack on the rear correspond to the Headphone VOLUME and DUAL SOUND SETTINGS.

When watching a video input picture
You can select DUAL SOUND to change the sound.

Adjusting the Picture and Sound

Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste. In addition, you can change the aspect ratio of the TV display for wide screen effect or set the resolution to obtain a higher quality picture. You can also select dual sound (bilingual) programmes when available or adjust the sound for listening with the headphones.

- 1 Press \blacktriangle (for picture) or \triangleright (for sound) on the remote Commander.
or
Press MENU and select «Picture Control» or «Sound Control», then press OK. The PICTURE CONTROL or SOUND CONTROL menu appears. (See Fig. 28 or Fig. 29.)
- 2 Using $\Delta+$ or $\nabla-$, select the item you want to adjust and press OK. The selected item changes colour. (See Fig. 30.)
- 3 Adjust the setting with $\Delta+$ or $\nabla-$ and press OK. The cursor appears beside the next item (at the left margin). (See Fig. 31.) For the effect of each control, see the table below.
- 4 Repeat steps 2 and 3 to adjust other items.



Effect of each control

PICTURE CONTROL	Effect
Contrast	Less — More
Brightness	Darker — Brighter
Colour	Less — More
Hue	Greenish — Reddish
Sharpness	Solter — Sharper
Reset	Resets picture to the factory preset levels.
Format	4 : 3 : Normal 16 : 9 : Wide screen effect
Resolution	Normal high : Obtain a higher quality picture

SOUND CONTROL	Effect
Volume	Less — More
Treble	Less — More
Bass	Less — More
Balance	More left — More right
Reset	Resets sound to the factory preset levels.
Loudness	off: Normal on: When listening to low volume sound.
Space	off: Normal on: Obtain acoustic sound effect.
Dual Sound	A: left channel B: right channel Stereo mono The selected mode of the A-CD-B Indicator on the TV lights up (for NICAM broadcasts see next page)

Headphones :	Volume	Less — More
	Dual Sound	A: left channel B: right channel stereo mono

Selecting Nicam Broadcasts*

This Sony TV has been designed to select Nicam broadcasts when available. Whenever a Nicam broadcast is received »NICAM« appears briefly on the screen. When the Nicam programme ends, or you switch channels to one without Nicam, the A-CD-B indicators, on the TV will switch off.

Nicam programmes can be broadcast in two ways. You may select the sound you want to hear in either of these by first following the instructions explained on page 16.

Service Being Broadcast	Action	Effect	Indication on the TV A-CD-B
Stereo	Press $\Delta+$ or $\nabla-$	Stereo Nicam (Mono 2-Channel) mono	
Bilingual	Press $\Delta+$ or $\nabla-$	Channel A Nicam Channel B Nicam mono	
	Press $\Delta+$ or $\nabla-$	Press $\Delta+$ or $\nabla-$ again to return to channel A Nicam	

* Depending on availability of service.

PROGRAMME TABLE

To go back to the normal TV picture
Press MENU.

Using the Programme Table

On this table, you can see which channel is preset to which programme position. You can also select programmes using this table.

From the main menu, select »Programme Table« with $\Delta+$ or $\nabla-$ and press OK.

The PROGRAMME TABLE menu appears. (See Fig. 32.)

To scroll to higher programme numbers, press $\Delta-$.

To select a programme using this menu

Select the programme number with $\Delta+$ or $\nabla-$ and press OK.
The selected programme appears.

PROG CH	LABEL	PROG CH	LABEL
1	C21	11	C38
2	C24	12	C40
3	C23	13	C41
4	C27	14	C43
5	C28	15	C54
6	C22	16	C55
7	C31	17	C57
8	C30	18	C58
9	C38	19	C46
10	C35	20	C48

Fig. 32.

TIMER

To switch off the timer
Select »OFF« in step 3.

To check the remaining time
Press \odot .

Using the Sleep Timer

You can select a time period after which the TV automatically switches into standby mode.

1 From the main menu, select »Timer« with $\Delta+$ or $\nabla-$ and press OK.

The TIMER menu appears. (See Fig. 33.)

2 Press OK.

The time period option changes colour.

3 Select the time period with $\Delta+$ or $\nabla-$.

The time period (in minutes) changes as follows:

10 → 20 → 30 → 40 → 50 → 60 → 70 → 80 → 90

↑ OFF

4 After selecting the time period, press OK.

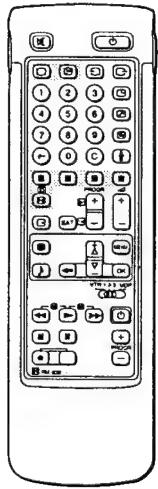
The cursor moves back to the left margin and the timer starts counting.

One minute before the TV switches into standby mode, a message is displayed on the screen.

TIMER
> Sleep Timer (off) Select $\square \square$ and press OK

Fig. 33.

1-7. TELETEXT



12

TV stations broadcast an information service called Teletext via the TV channels. Teletext service allows you to receive various information pages such as weather reports or news at any time you want. For advanced teletext operation, use the buttons on the Full-Function side of the Remote Commander.

Direct Access Functions

Switching Teletext on and off

- 1 Select the TV channel which carries the teletext broadcast you want to watch.
- 2 Press \textcircled{B} to switch on teletext.
A teletext page will be displayed (usually the index page). If there is no teletext broadcast, «No text available» is displayed on the information line at the top of the screen.

To switch teletext off

Press \textcircled{C} .

Selecting a teletext page

With direct page selection

Use the number buttons to input the three digits of the chosen page number.
If you have made a mistake, type in any three digits. Then re-enter the correct page number.

With page-catching

- 1 Select a teletext page with a page overview (e.g. index page).
- 2 Press \textcircled{B} twice. «Page catching» will be displayed on the information line. The last digit of the first displayed page number flashes.
- 3 Using $\Delta+$ or $\nabla-$, select the desired page and press OK. The requested page will appear in a few seconds.

Accessing next or preceding page

Press \textcircled{B} (PAGE+) or \textcircled{D} (PAGE-).
The next or preceding page appears.

Superimposing the teletext display on the TV programme

- Press \textcircled{B} once in teletext mode or twice in TV mode.
- Press \textcircled{B} again to resume normal teletext reception.

Preventing a teletext page from being updated

- Press \textcircled{B} (HOLD). The HOLD symbol \textcircled{B} is displayed on the information line.
- Press \textcircled{B} to resume normal teletext reception.

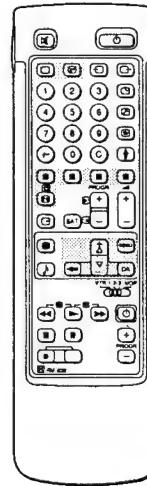
Using Fastext

With Fastext you can access pages with one key stroke.
When a Fastext page is broadcast, a colour-coded menu will appear at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue buttons on the Remote Commander.
Press the corresponding coloured button on the Remote Commander which corresponds to the colour-coded menu. The page will be displayed after a few seconds.

Note
Teletext errors may occur if the broadcasting signals are weak.

With the simple side of the Remote Commander
You can switch teletext on and off, operate Fastext, and directly select page numbers.

Note
Fastext operation is only possible, if the TV station broadcasts Fastext signals.



Using the Teletext Menu

This TV is provided with a menu-guided teletext system. When teletext is switched in, you can use the menu buttons to operate the teletext menu. Select the teletext menu functions in the following way:

- 1 Press MENU. The menu will be superimposed on the teletext display. (See Fig. 34.)
- 2 Using $\Delta+$ or $\nabla-$, select the teletext function you want and press OK. (See Fig. 35.)

USER PAGES/PRESET USER PAGES

See page 19 for information about presetting and operating the user pages.

INDEX

The index will give you an overview of the contents of the teletext and the page numbers.

TOP/BOTTOM/FULL

For convenient reading of a teletext page, you can enlarge the teletext display. After having selected the function, an information line TOP/BOTTOM/FULL will be displayed. (See Fig. 36.)

Press $\Delta+$ for «Top» to enlarge the upper half, $\nabla-$ for «Bottom» to enlarge the lower one and OK for «Full» to resume the normal size.

Press \textcircled{B} to resume normal teletext reception.

TEXT CLEAR

After having selected the function, you can watch a TV programme while waiting for a requested teletext page to be displayed. (See Fig. 37.)

Press \textcircled{B} to resume normal teletext reception.

SUBTITLES

Your teletext service will inform you if a TV programme is subtitled. After having selected the function the subtitles will be displayed.

REVEAL

Sometimes Pages contain concealed information, such as answers to a quiz. The reveal option lets you disclose the information. After having selected the function, an information line «REVEAL ON/OFF» will be displayed. (See Fig. 38.)

Using $\Delta+$ or $\nabla-$, select ON to reveal the information of OFF to conceal it again.

Press \textcircled{B} to resume normal teletext reception.

TIME PAGE

Your teletext service will inform you, if a time coded page is available. You may have a page (e.g. an alarm page) displayed at a certain time.

Note on SUBTITLES
If the subtitles are not broadcast on page 888, please select the subtitle page using the number buttons.

To cancel the request
Select «OFF» for the TIME PAGE setting.



Fig. 34.

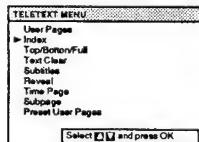


Fig. 35.

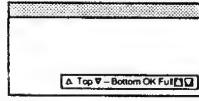


Fig. 36.

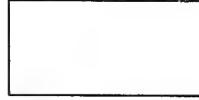


Fig. 37.

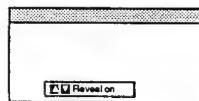


Fig. 38.

To cancel the request
Select «Subpage»
and press OK.

If two broadcasting stations use the same Teletext You can preset one bank to 2 different programme positions.

- 3 To select the desired time, enter four digits for the desired time (e.g. 1800) using the number buttons. The selected time is displayed at the top in the left-handed corner. At the requested time, the page will be displayed.

Press **OK** to resume normal teletext mode.

SUBPAGE

You may want to select a particular teletext page from several subpages which are rotated automatically. After having selected the function, an information line will be displayed.

To select the desired subpage, enter four digits using PROGR +/- or the number buttons (e.g. enter 0002 for the second page of a sequence).

User Page Bank System

You can store up to 30 pages in the «Teletext page bank system». In this way you have quick access to the pages you watch frequently.

Storing pages

There are 5 «banks» (A to E) for 5 teletext stations. In each bank you can store 6 preferred pages (P1 to P6).

- 1 Press **OK** (if Teletext is not on already) and MENU to show the TELETEXT MENU display.
- 2 Select PRESET USER PAGES with $\Delta+$ or $\nabla-$ and press OK.
- 3 Select the desired bank with $\Delta+$ or $\nabla-$ and press OK. The cursor will go to the first position (P1) of the preferred pages.
- 4 Input the three digits of your first preferred page with the number buttons.
The cursor will go to the second position.
- 5 Repeat step 4 for the other 5 page numbers you want to preset. If you do not want to preset all 6 page numbers available, press OK without inserting any number.
- 6 Select «Allocate Bank» with $\Delta+$ or $\nabla-$ and press OK.
- 7 Select the programme position for which you have preset pages with $\Delta+$ or $\nabla-$ and press OK. (See Fig. 39.)
- 8 Select the desired bank with $\Delta+$ or $\nabla-$ (Banks A to E are available) and press OK.
- 9 Repeat steps 3 to 8 for the other 4 banks available.

Displaying User Pages.

- 1 Select MENU.
- 2 Select USER PAGES with $\Delta+$ or $\nabla-$ and press OK.
A table of the stored preferred pages will be displayed. (See Fig. 40.)
- 3 Select the desired page with $\Delta+$ or $\nabla-$ and press OK. The page will be displayed after some seconds.

PRESET USER PAGES						
BANK	P1	P2	P3	P4	P5	
A	300	255	454	234	200	178
B	100	220	300	303	350	345
C	100	220	300	444		
D	128	321	253			
E	400	234	240	111	127	

Fig. 39.

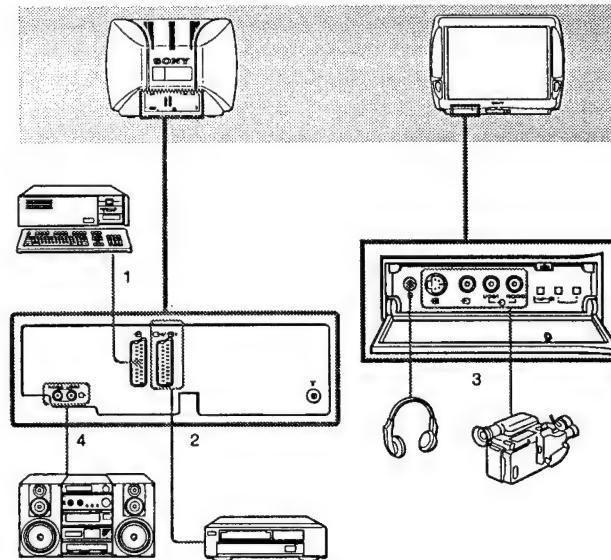
USER PAGES					
► PAGE 300					
PAGE 200					
PAGE 203					
PAGE 250					
PAGE 234					
PAGE 156					

Fig. 40.

1-8. CONNECTING AND OPERATING OPTIONAL EQUIPMENT

Connecting Optional Equipment

You can connect optional audio-video equipment to this TV such as a VTRs, video disc player, and stereo system.



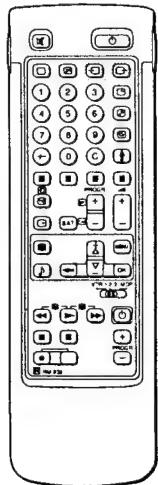
To connect a VTR using the **T** terminal
Connect the serial output of the VTR to the aerial terminal **T** of the TV.
We recommend that you tune in the video signal to programme number «0». For details see «Preset channels manually» on page 8.

If the picture or the sound is distorted
Move the VTR away from the TV.

S video Input(Y/C Input)
Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals.
Separating the Y and C signals prevents them from interfering with one another, and therefore improves picture quality (especially luminance).
This TV is equipped with 2 S Video input jacks through which these separated signals can be input directly.

When connecting a monaural VTR
Connect only the white \ominus jack to both the TV and VTR.

Acceptable input signal	Available output signal
1 Normal audio/video and RGB signal	Video/audio from TV tuner
2 Normal audio/video and S video signal	Video/audio from selected source
3 Normal audio/video and S video signal	No outputs
4 No inputs	Audio signal (variable)



Selecting input with PROGR +/- or number buttons
You can preset video input sources to the programme positions so that you can select them with PROGR +/- or number buttons. For details, see "Preset channels manually" on page 8.

Selecting input and output

This section explains how to view the video input picture (of a video source connected to your TV), and how to select the output signal using direct access buttons or the menu system.

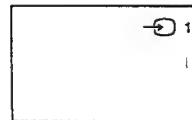
Selecting Input

Press $\text{--} \square$ repeatedly to select the input source.

The symbol of the selected input source will appear.

To go back to the normal TV picture

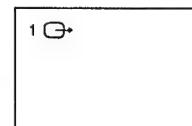
Press \square .



Input modes

Symbol	Input signal
$\text{--} \square 1$	Audio/video input through the $\text{--} \square 1$ connector
$\text{--} \square$	RGB input through the $\text{--} \square 1$ connector
$\text{--} \square 2$	Audio/video input through the $\text{G}+ 2 / \text{--} \square 2$ connector
$\text{--} \square 2$	S video input through the $\text{G}+ 2 / \text{--} \square 2$ connector
$\text{--} \square 3$	Audio/video input through $\text{--} \square 3$ and $\text{--} \square 3$ on the front
$\text{--} \square 3$	S video input through the $\text{--} \square 3$ connectors on the front (4-pin connector)

You can also select the input mode using the $\text{P} \rightarrow \text{A} \rightarrow \text{S}$ and -/+ buttons on the TV. In this case, first select $\text{--} \square$, and then press -/+ buttons to select the input.

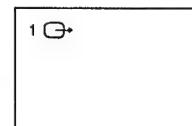


Selecting the output

The $\text{G}+ 2 / \text{--} \square 2$ connector outputs the source input from the other connectors.

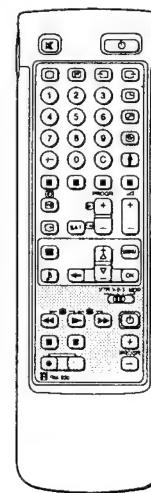
Press $\text{G}+$ repeatedly to select the output.

The symbol of the selected output source appears.



Output modes

Symbol	Output mode
1 $\text{G}+$	The audio/video signal from the $\text{--} \square 1$ connector
2 $\text{G}+$	The audio/video signal from the $\text{G}+ 2 / \text{--} \square 2$ connector
2 $\text{G} \rightarrow$	The audio/S video signal from the $\text{G}+ 2 / \text{--} \square 2$ connector
3 $\text{G}+$	The audio/video signal from the $\text{--} \square 3$ and $\text{--} \square 3$ connectors
3 $\text{G} \rightarrow$	The audio/S video signal from the $\text{--} \square 3$ and $\text{--} \square 3$ connectors
TV $\text{G}+$	The audio/video signal from the T aerial terminal



When recording
when you use the \bullet (record) button, make sure to press this button and the one to the right of it simultaneously.

Checking and selecting the input and output sources using the menu

You can display the menu to see which input sources are selected for the TV screen, and which output source is selected. You can also select them on the menu display.

- 1 Select "Video Connection" with $\Delta+$ or $\nabla-$ and press OK. The VIDEO CONNECTION menu appears. (See Fig. 41.)

You can see which source is selected for the TV input and for the output. If you want to select the input and output on this menu, go on to the next step.

- 2 Select TV screen (input source for the TV screen), or Output (output source) with $\Delta+$ or $\nabla-$ and press OK. One of the source items changes colour. (See Fig. 42.)

- 3 Select the desired source with $\Delta+$ or $\nabla-$. (See Fig. 43.) For details about each source, see the table on page 21.

- 4 Press OK.

The selected source is confirmed, and the cursor appears. (See Fig. 44.)

- 5 Repeat steps 2 to 4 to select the source for other inputs or outputs.

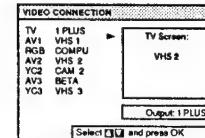


Fig. 41.

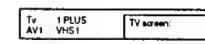


Fig. 42.

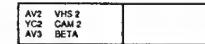


Fig. 43.

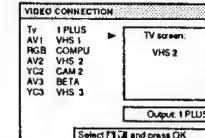


Fig. 44.

Remote Control of Other Sony Equipment

You can use the TV Remote Commander to control most of Sony remote-controlled video equipment such as: Beta, 8 mm or VHS VTRs or video disc players.

Tuning the Remote Commander to Sony equipment

- 1 Set the VTR 1/2/3 MDP selector according to the equipment you want to control:

VTR 1: Beta or ED Beta VTR
VTR 2: 8 mm VTR
VTR 3: VHS VTR
MDP : Video disc player

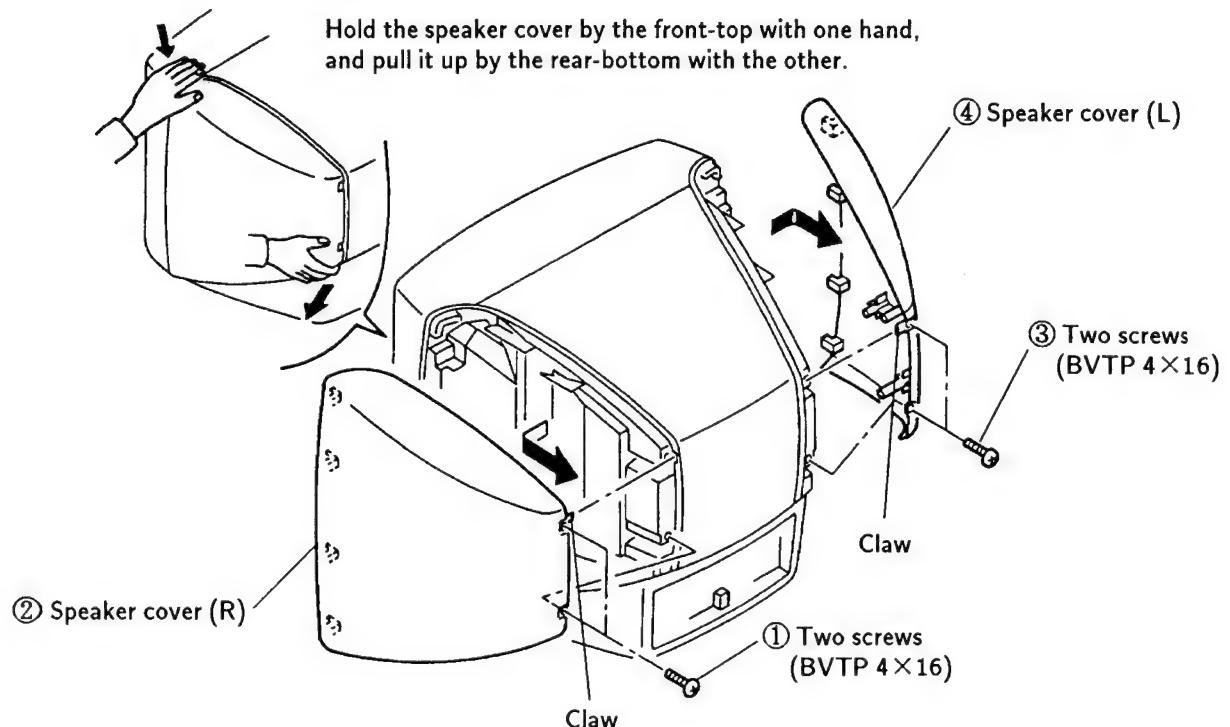
- 2 Use the buttons indicated in the illustration to operate the additional equipment.

If your video equipment is furnished with a COMMAND MODE selector, set this selector to the same position as the VTR 1/2/3 MDP selector on the TV Remote Commander.

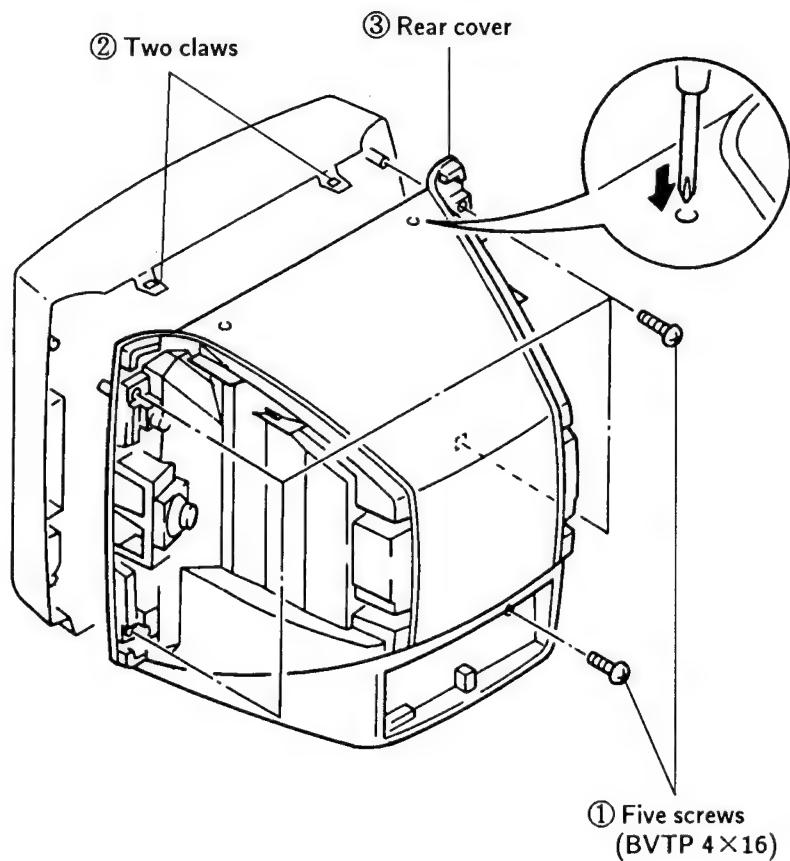
If the equipment does not have a certain function, the corresponding button on the Remote Commander will not operate.

SECTION 2 DISASSEMBLY

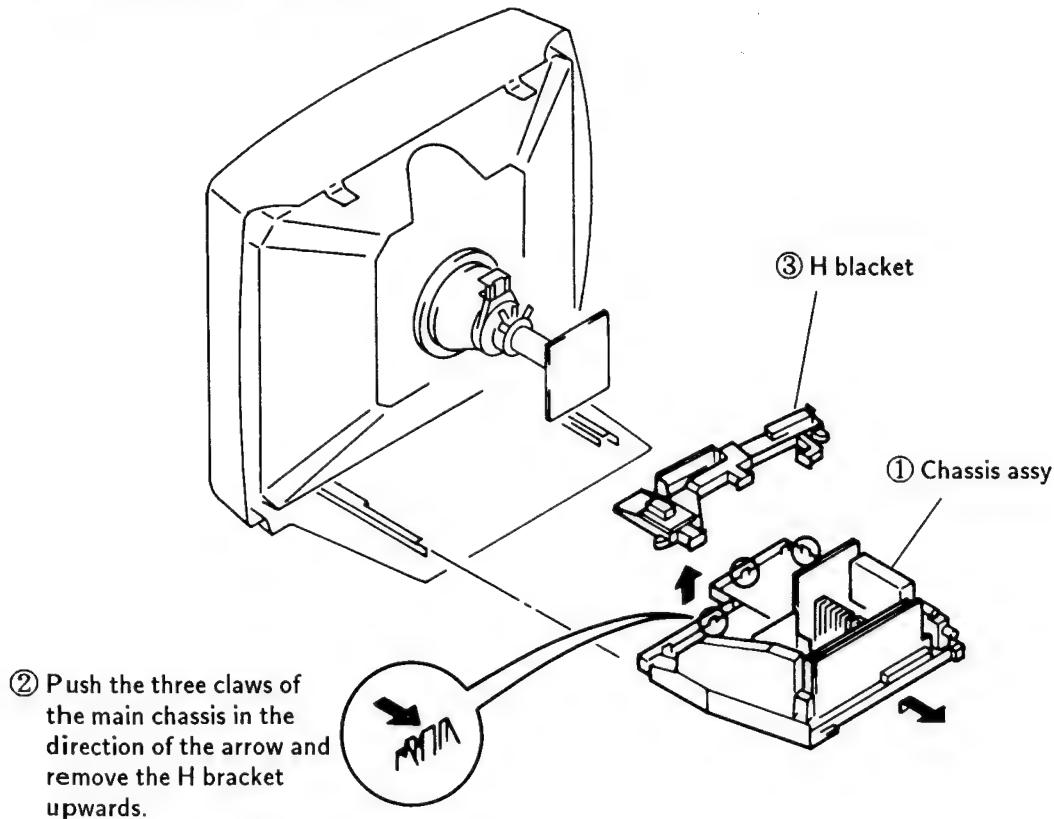
2-1. SPEAKER COVER REMOVAL



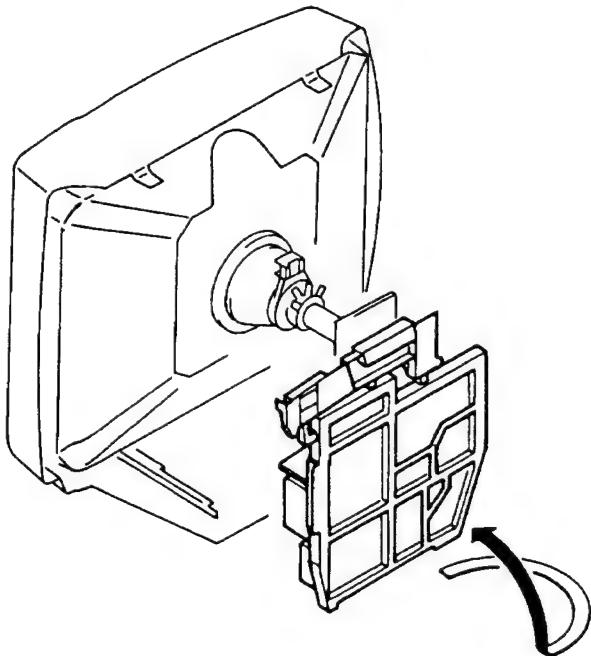
2-2. REAR COVER REMOVAL



2-3. CHASSIS ASSY REMOVAL

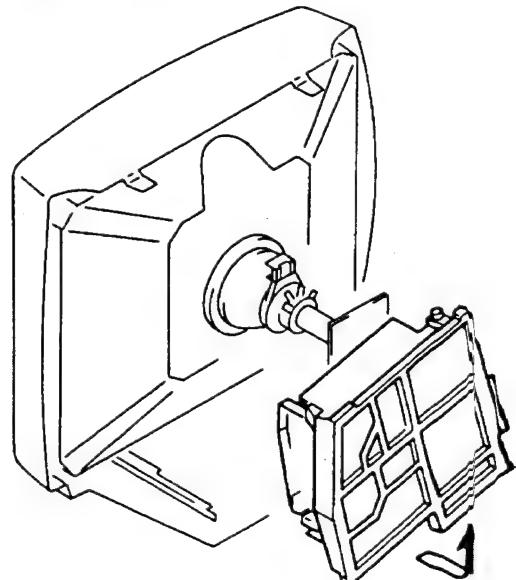


2-4. SERVICE POSITION (1)

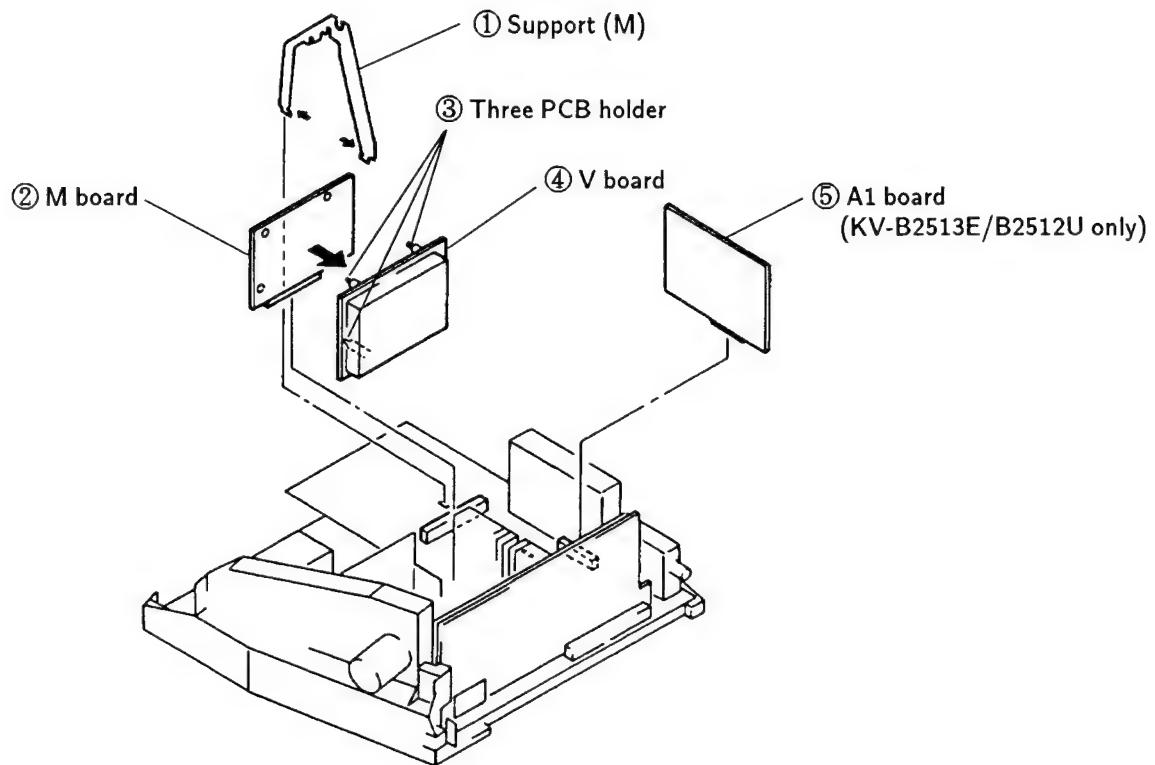


SERVICE POSITION (2)

※ Remove the H bracket from the chassis assy and then perform the following servicing.
(Refer to 2-3. CHASSIS ASSY REMOVAL)



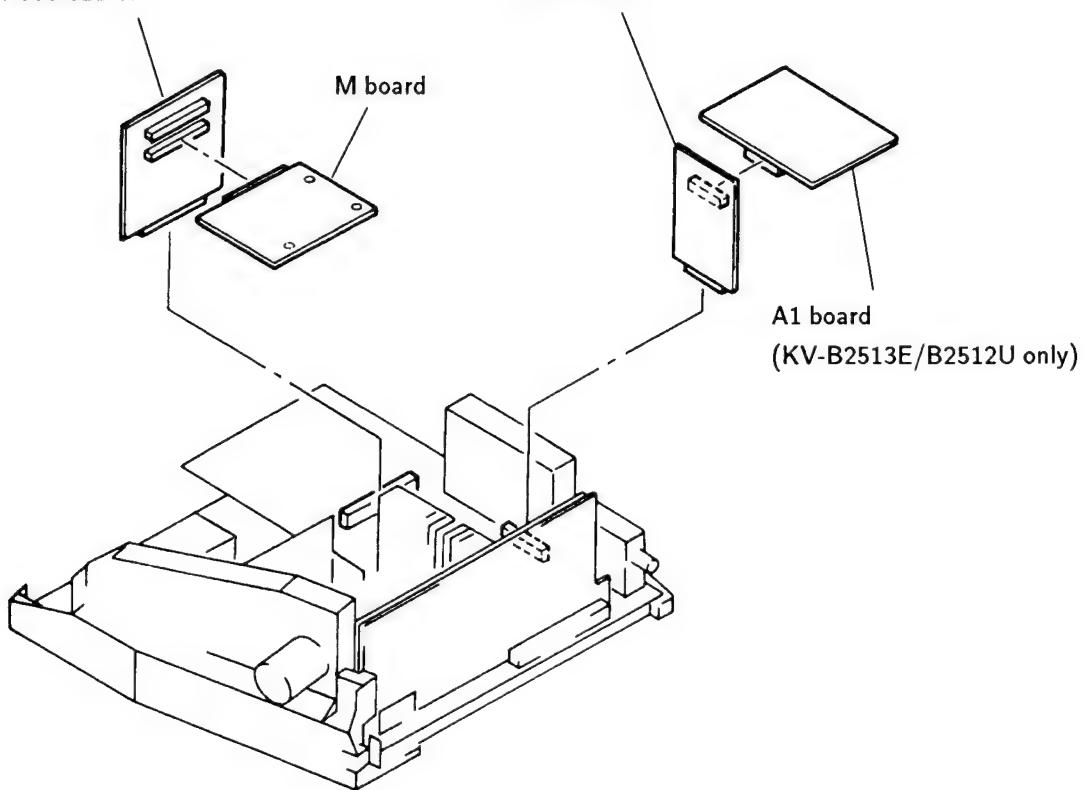
2-5. M, V AND A 1 BOARDS REMOVAL

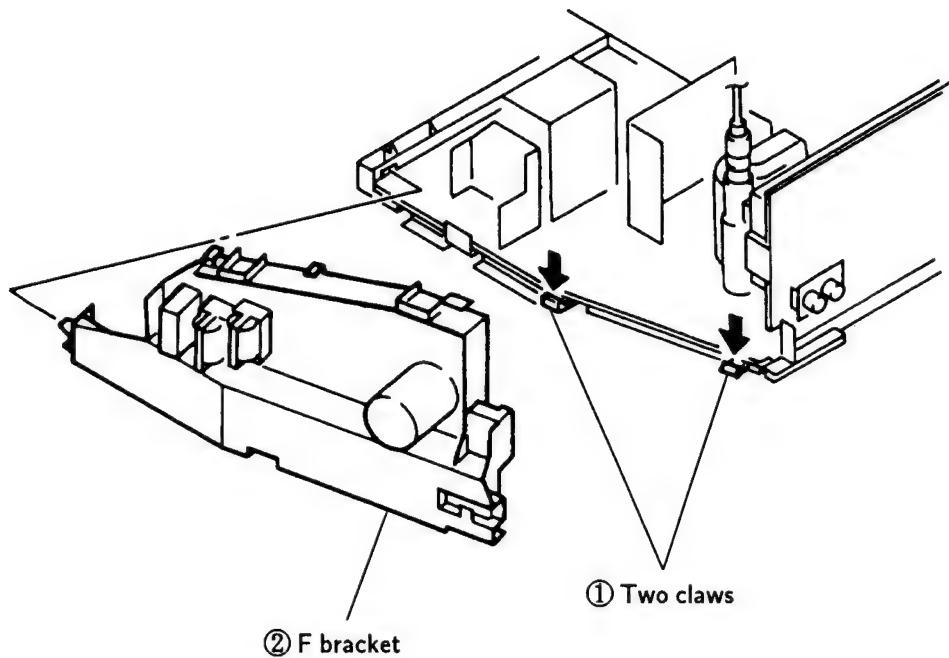
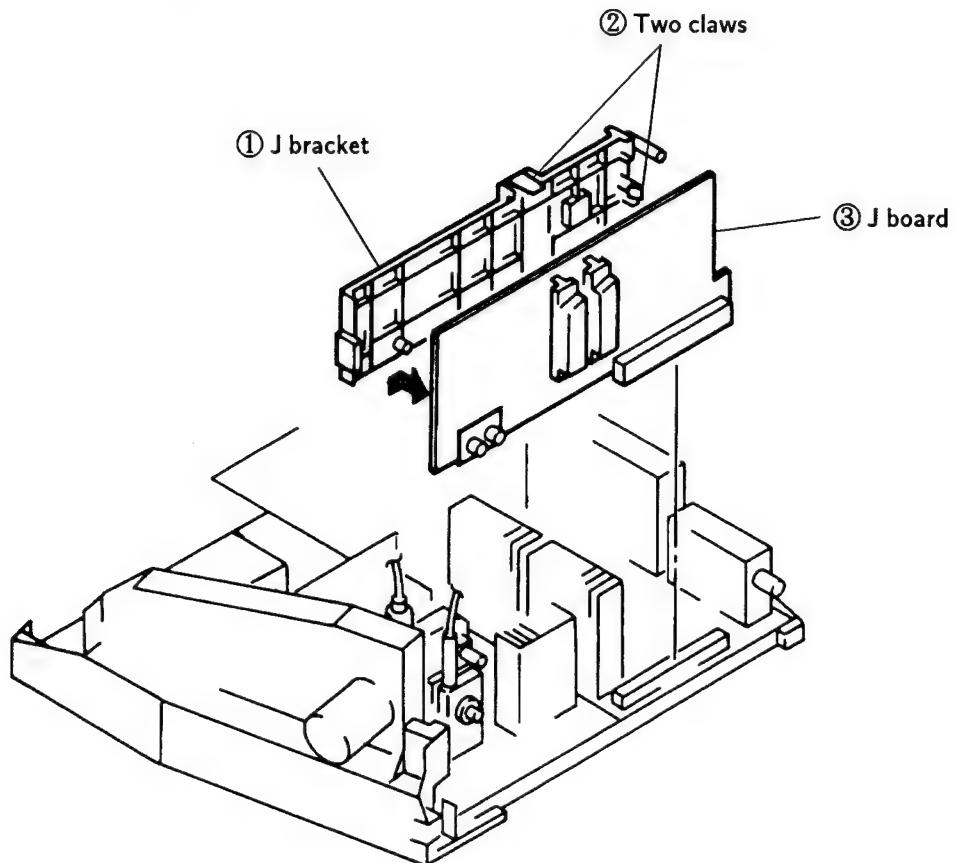


2-6. EXTENSION BOARD

AE2 M extension board
4-038-321-01

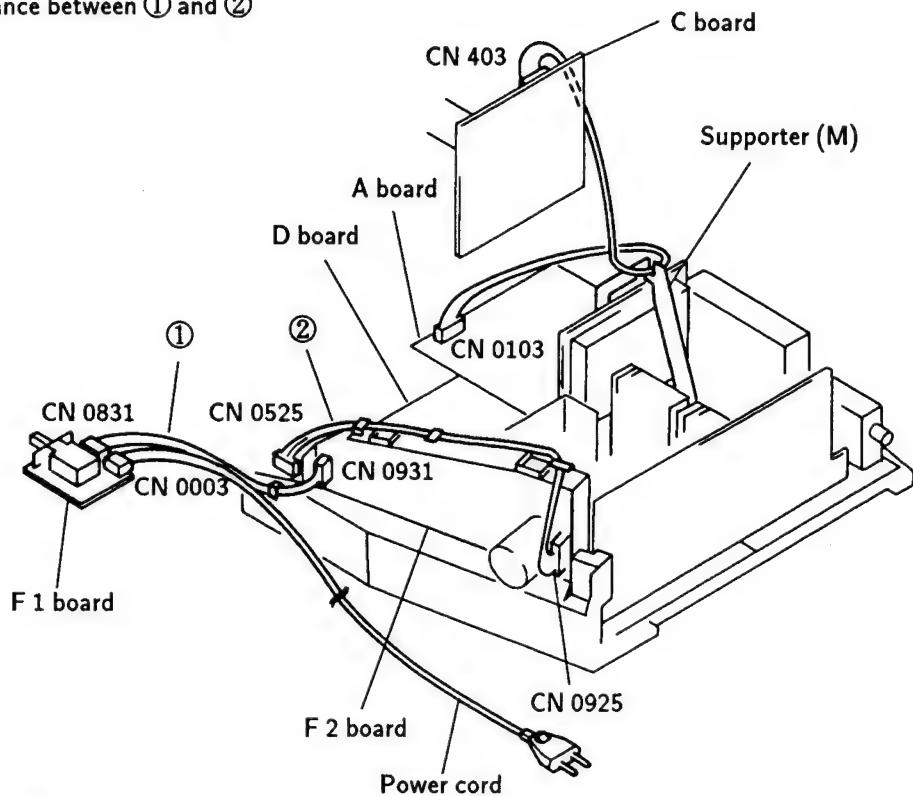
AE2 A1 extension board
4-038-319-01



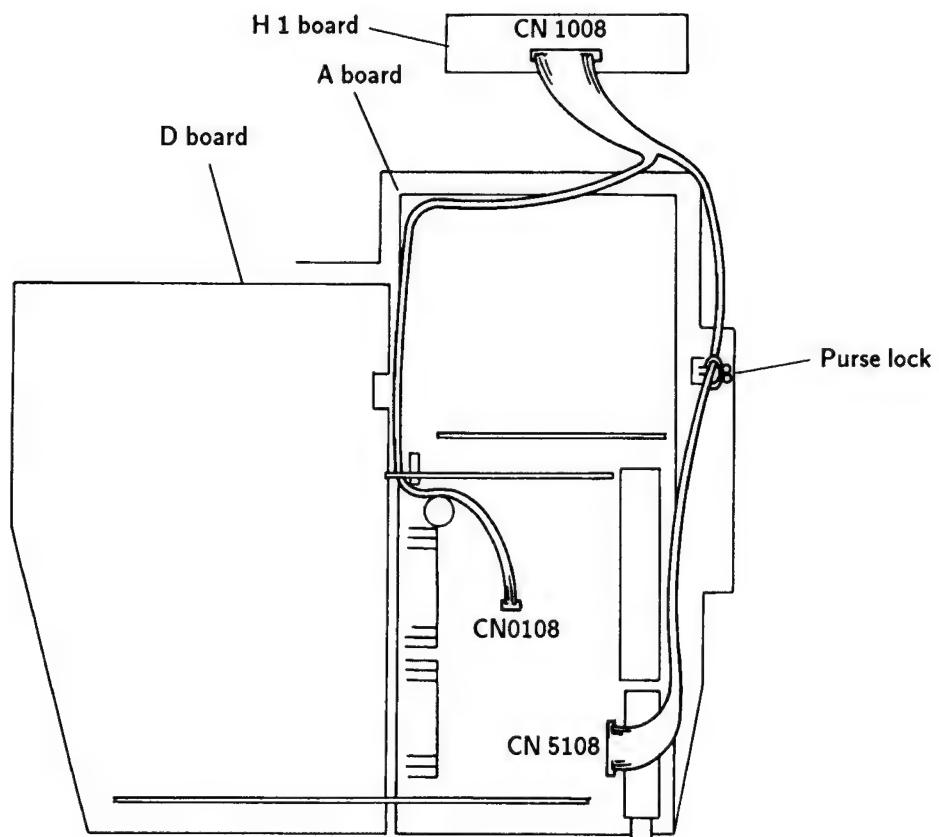
2-7. F BRACKET REMOVAL**2-8. J BOARD REMOVAL**

2-9-1. WIRE ROD

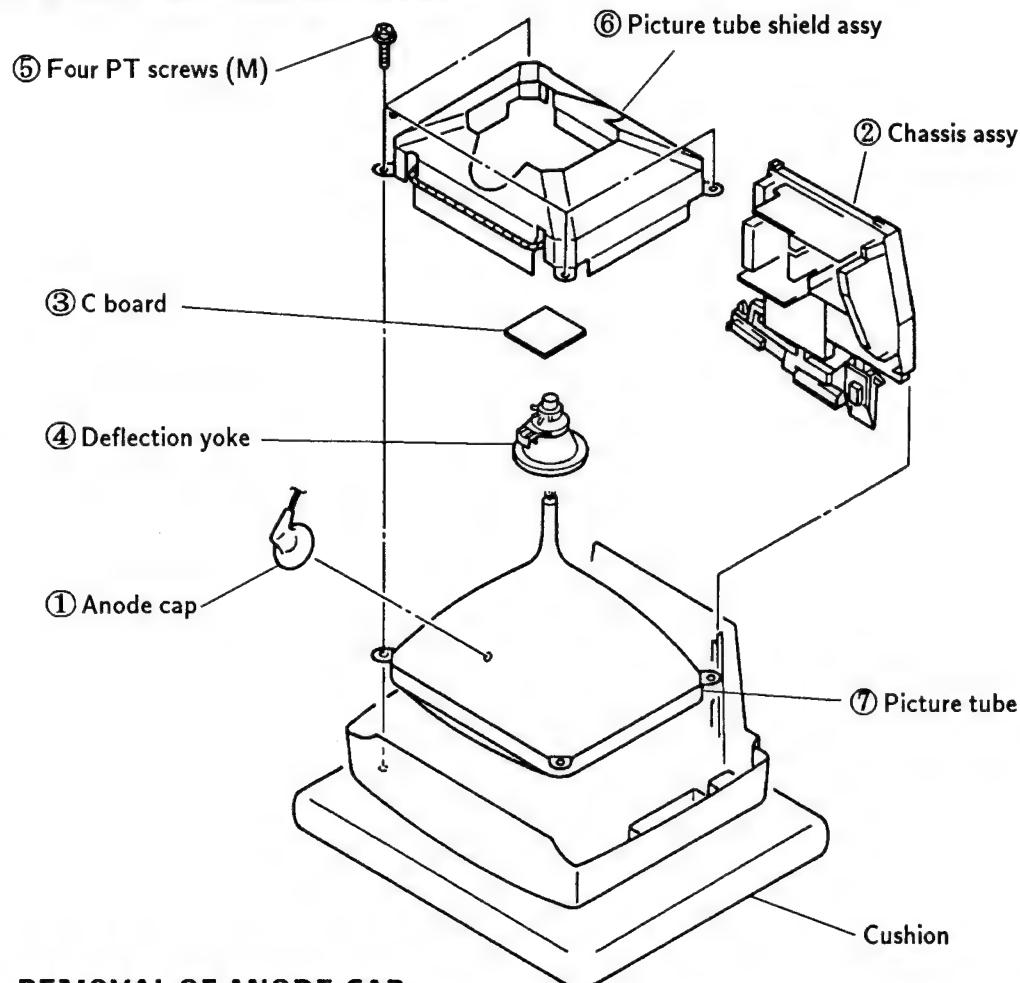
※ Keep distance between ① and ②



2-9-2. WIRE ROD



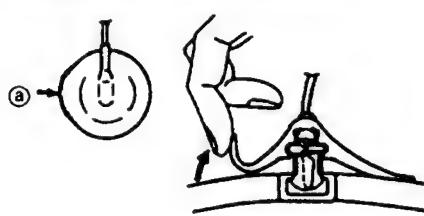
2-10. PICTURE TUBE REMOVAL



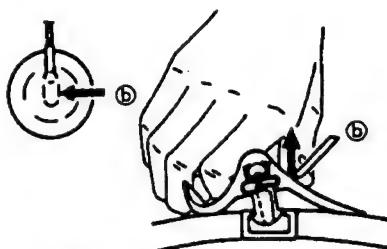
• REMOVAL OF ANODE-CAP

NOTE : Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon painted on the CRT, after removing the anode.

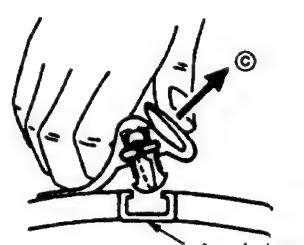
• REMOVING PROCEDURES



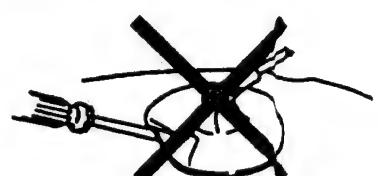
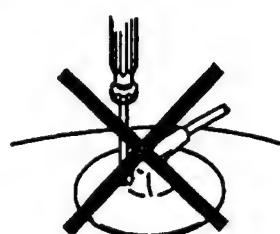
- ① Turn up one side of the rubber cap in the direction indicated by the arrow ④.



- ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⑤.



- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⑦.



• HOW TO HANDLE AN ANODE-CAP

- ① Don't hurt the surface of anode-caps with sharp shaped material!
- ② Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.
- ③ Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.

SECTION 3 SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there is specific instruction to the contrary, carry out these adjustments with the rated power supply.
- Unless there is specific instruction to the contrary, set the controls and switches this way :
 - Contrast 80% (or remote control normal)
 - Brightness 50%

Preparations :

- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the white signal with the pattern generator.
Contrast } normal
Brightness }
2. Position neck assy as shown in Fig.3-2.
3. Set the pattern generator raster signal to red.
4. Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side. (See Fig.3-1 - 3-3)
5. Move the deflection yoke forward and adjust so that entire screen is red. (See Fig.3-1)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig.3-4)

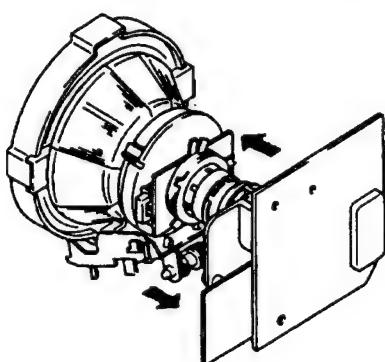


Fig.3-1

- Carry out the following adjustments in this order :

1. Beam landing

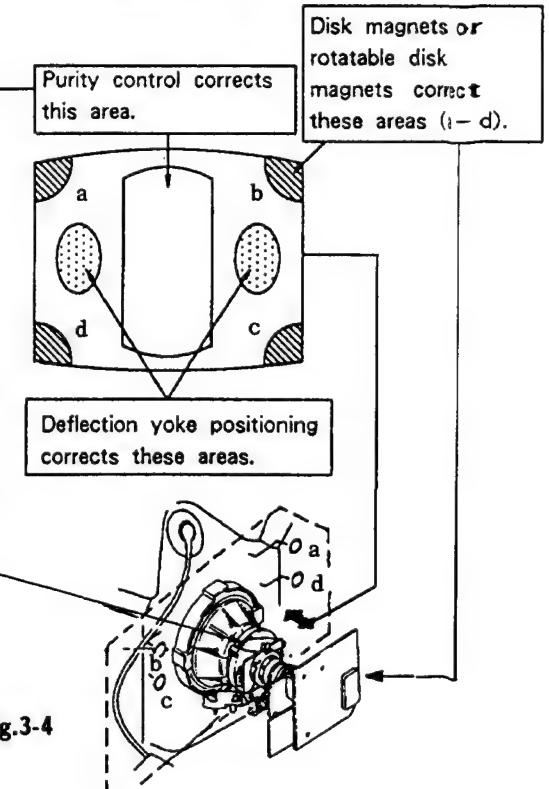
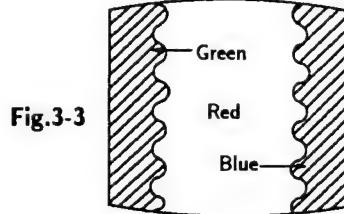
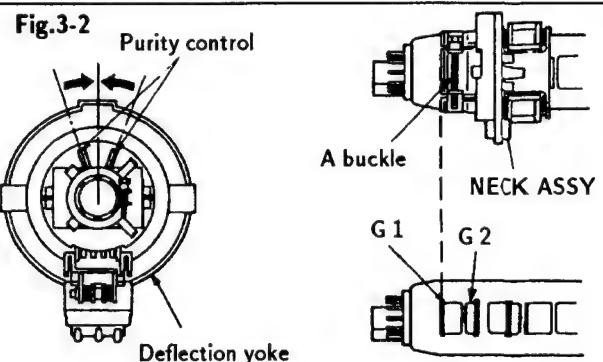
2. Convergence

3. Focus

4. White balance

Note: Testing equipment required.

1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

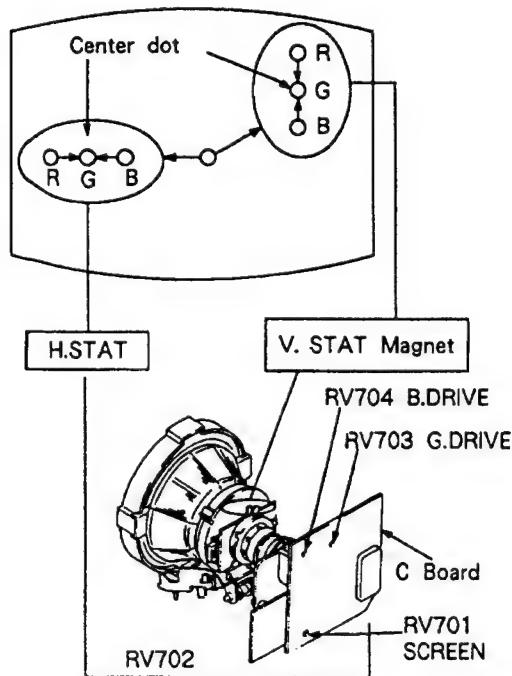


3-2. CONVERGENCE

Preparations :

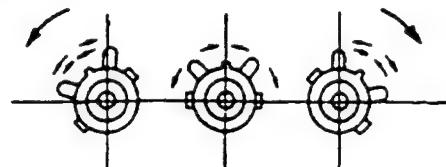
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

(1) Horizontal and vertical static convergence

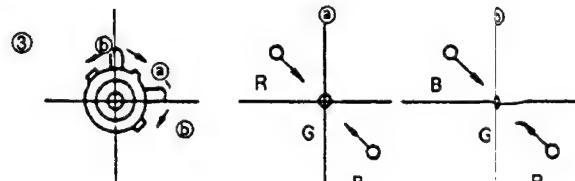
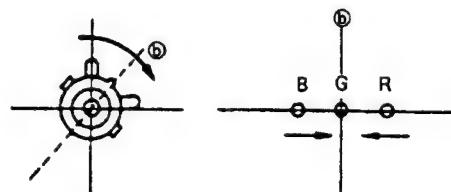
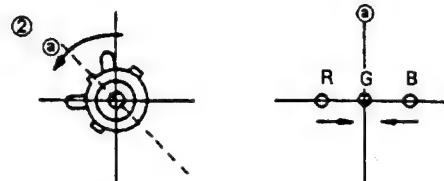
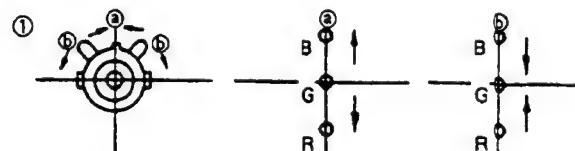


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V. STAT magnet in the manner given below.
(In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

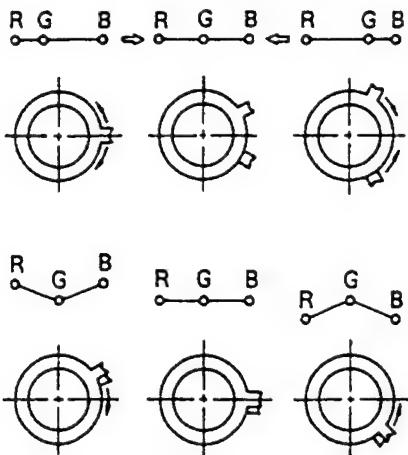
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



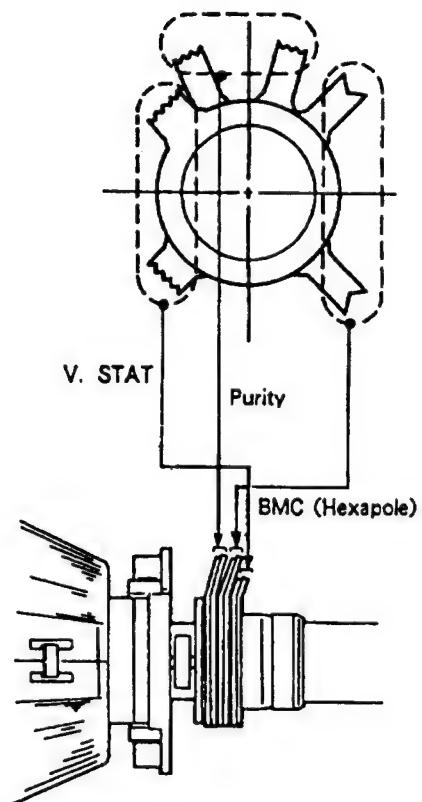
4. If the V.STAT magnet is moved in the direction of the @ and ③ arrows, the red, green, and blue points move as shown below.



- Operation of BMC (Hexapole) Magnet



- The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

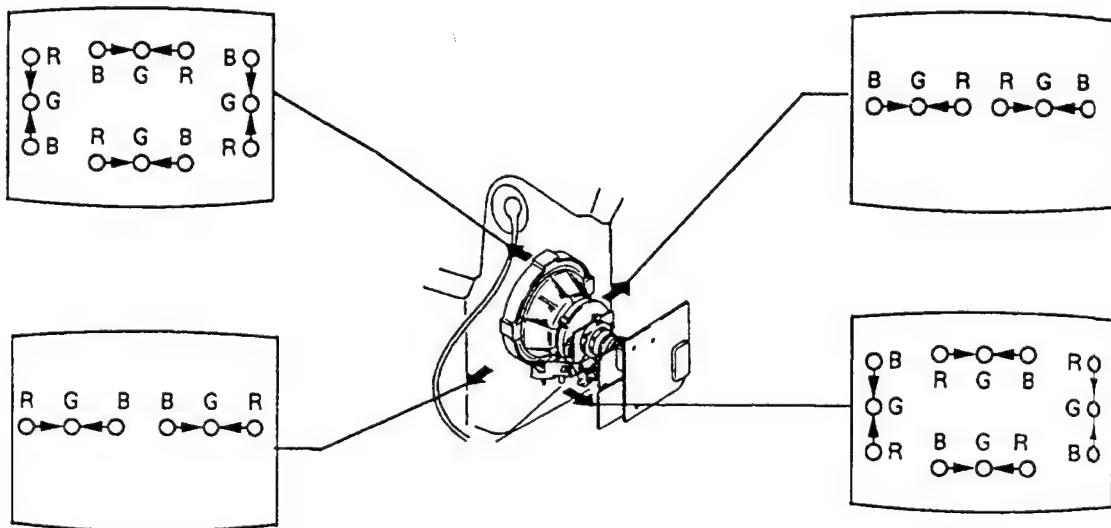


(2) Dynamic convergence adjustment**Preparations :**

Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

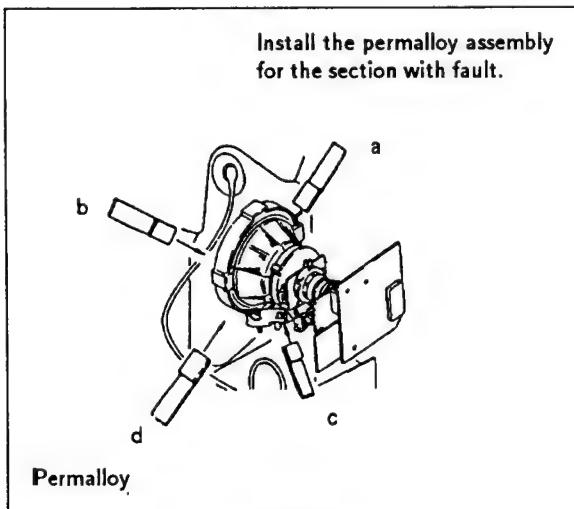
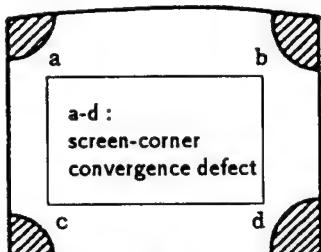
1. Slightly loosen the deflection yoke screws.
2. Remove the deflection yoke spacer.

3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Install the deflection yoke spacer.

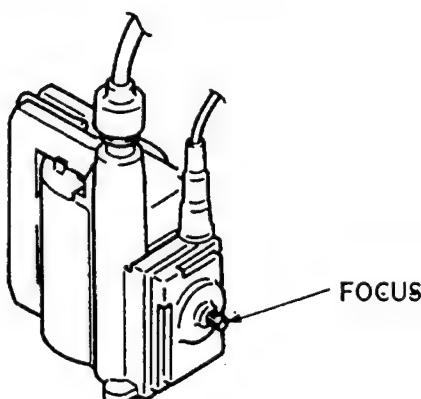


(3) Screen corner convergence

If you cannot adjust corner convergence properly, correct them with permalloy.

**3-3. FOCUS**

Adjust the focus to optimize the screen.

**3-4. WHITE BALANCE****Screen G2 Setting**

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 170V DC to the R,G, and B cathodes with an external power supply.
4. While watching the picture, adjust G 2 control RV 701 (Screen) to the point just before the return lines disappear.

White balance adjustment

1. Receive all-white signal.
2. Enter into service mode. (Refer to the section 4 "Electrical Adjustment" to how to enter service mode.)
3. Select CXA1587S on menu.

CXA1587S

Item No.	Adjustment item	Data amount
09	SUB BRIGHT	ADJ.
10	SUB HUE	8
11	VM LEVEL	2
12	NR LEVEL	0
13	ABL MODE	0
14	G-DRIVE	ADJ.
15	B-DRIVE	ADJ.
16	G-AUTO CUT OFF	ADJ.
17	B-AUTO CUT OFF	ADJ.
18	R-MANUAL CUT OFF	ADJ.
19	G-MANUAL CUT OFF	ADJ.
20	B-MANUAL CUT OFF	ADJ.

4. Set picture to MAX.
5. Adjust G-DRIVE B-DRIVE with buttons so that the white balance becomes optimum.
6. Press **OK** button to write the data for each item.
7. Set picture to MIN.
8. Adjust G-AUTO CUT OFF, B-AUTO CUT OFF, R -MANUAL CUT OFF, G-MANUAL CUT OFF and B-MANUAL CUT OFF with buttons so that the white balance becomes optimum.
9. Press **OK** button to write the data for each item.

SECTION 4 CIRCUIT ADJUSTMENTS

4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander, RM-830.

HOW TO ENTER INTO SERVICE MODE

1. Turn on the main power switch of the set while pressing any two buttons on the front panel.

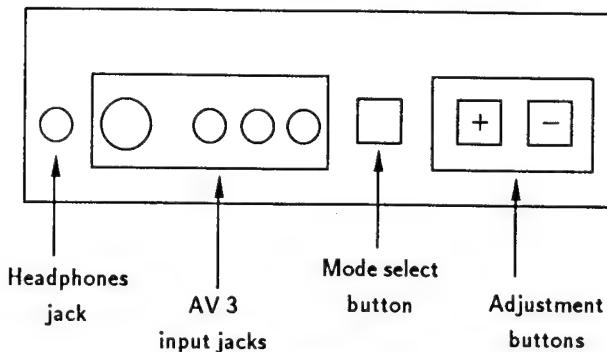


Fig.4-1

2. "TT" will appear on the upper right corner of the screen.

Command operation in service mode

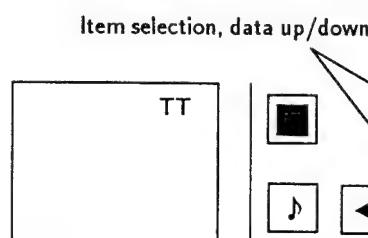


Fig.4-2

Fig.4-3

3. Press the [MENU] button of the commander to get the menu on screen.

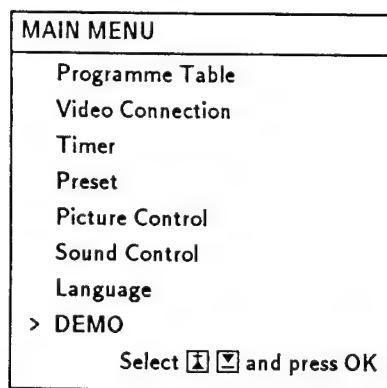


Fig.4-4

4. Press the [**I**] and [**V**] buttons of the commander and move **>** to DEMO.
5. Press [**OK**] button to proceed to the next menu.
6. The menu of fig.4-5 will appear on screen. Select DEVICE corresponding to the adjustment item from the table on next page.

DEVICES	
Initialize	
> CXA 1587 S	
CXD 2018	
TDA 9145	
CXA 1526	
TDA 6612	
CX 7948 A	
P/P SERVICE	
Select [I] [V] and press OK	

Fig.4-5

7. If adjustment item is CXA 1587 S, press the [**V**] button and move **>** to CXA 1587 S.
8. Press [**OK**] button to get the next selection menu.

CXA 1587 S

Item No.	Adjustment item	Data Amount
01	PICTURE	53
02	COLOR	31
03	BRIGHT	31
04	HUE	31
05	SHARPNESS	7
06	RGB PICTURE	10
07	SUB CONTRAST	8
08	SUB COLOR	8
09	SUB BRIGHT	31
10	SUB HUE	8
11	VM LEVEL	2
12	NR LEVEL	0
13	ABL MODE	0
14	G-DRIVE	32
15	B-DRIVE	32

9. Press [**V**] button and move **>** to the adjustment item and press [**OK**] button.
10. Press the [**I**] and [**V**] buttons to change the data in order to comply each standard.
11. Press [**OK**] button to write data.
12. Turn off the power to quit service mode when completing the adjustment.

CXA1587S

Item No.	Adjustment item	Data Amout
01	PICTURE	53
02	COLOR	31
03	BRIGHT	31
04	HUE	31
05	SHARPNESS	7
06	RGB PICTURE	10
07	SUB CONTRAST	8
08	SUB COLOR	ADJ.
09	SUB BRIGHT	ADJ.
10	SUB HUE	8
11	VM LEVEL	2
12	NR LEVEL	0
13	ABL MODE	0
14	G-DRIVE	ADJ.
15	B-DRIVE	ADJ.
16	G-AUTO CUT OFF	ADJ.
17	B-AUTO CUT OFF	ADJ.
18	R-MANUAL CUT OFF	ADJ.
19	G-MANUAL CUT OFF	ADJ.
20	B-MANUAL CUT OFF	ADJ.
21	GAMMA LEVEL	0
22	DC TRANSFER RATIO	0
23	DYNAMIC PICTURE	0
24	Y FILTER ADJ	ADJ.
25	Y DELAY TIME	15
26	Y DELAY SWITCH 1	OFF
27	Y DELAY SWITCH 2	ON
28	SHARPNESS LIMIT	ON
29	ALL BLK	OFF
30	H SHIFT	32
31	DAC TEST	AUTO
32	PRE/OVER SHOOT	8
33	SHARPNESS FO	2
34	SUB SHARPNESS	3
35	R MUTE	OFF
36	G MUTE	OFF
37	B MUTE	OFF

38	AGING 1	OFF
39	AGING 2	AUTO
40	AKB OFF	ON
41	INHIBIT RGB	OFF
42	FORCED RGB	AUTO
43	V/2 V	ON
44	AXIS	AUTO
45	HUE SW	OFF
46	V EXTENTION	OFF
47	AFC 1	ON
48	AFC 2	OFF
49	AFC OFF	ON
50	REF.POSITION	OFF

CXD 2018

Item No.	Adjustment item	Data Amout
01	V SIZE	ADJ.
02	V SHIFT	ADJ.
03	S CORRECTION	ADJ.
04	V LINEARITY	ADJ.
05	H SIZE	ADJ.
06	PIN AMP	ADJ.
07	TILT	ADJ.
08	UPPER CORNER	ADJ.
09	LOWER CORNER	ADJ.
10	V BOW	ADJ.
11	ANGLE	ADJ.
12	HV COMP.V	15
13	HV COMP.H	8
14	FRAME SHIFT	OFF
15	FREE RUN 60 Hz	OFF
16	SYSTEM 60 Hz	OFF
17	ASPECT WIDE	OFF
18	DOUBLE SCAN	OFF
19	NON INTERLACE	OFF
20	H SHIFT	ADJ.
21	N/S CORRECTION	ADJ.

Typical Value (OSD based)when receiving PAL Philips pattern.

TDA 6612

Adjustment item	Data Amout
Stereo-Separation	30

Should be adjusted twice 4 : 3 and 16 : 9 mode.

Y FILTER ADJUSTMENT

1. Input PAL RED pattern.
2. Connect an oscilloscope to CN 0403 ① pin (R OUT) on the C board.
3. Enter into service mode and press 3, 8.
4. Adjust data by Δ or ∇ to minimize the chroma element of CN 0403 ① pin.

STEREO-SEPARATION ADJUSTMENT

1. Input 1 kHz stereo signal to the L-ch and 400 Hz stereo signal to the R-ch.
2. Enter into service mode and press 19.
3. Adjust data so that sound does not leak to the R-ch and the L-ch.

SUB BRIGHTNESS ADJUSTMENT

1. Input Phillips pattern.
2. Enter into service mode and press 23.
3. Adjust data so that 0-IRE of the grey scale and CUT-OFF 20-IRE glitter slightly.

DRIVE AND CUT OFF

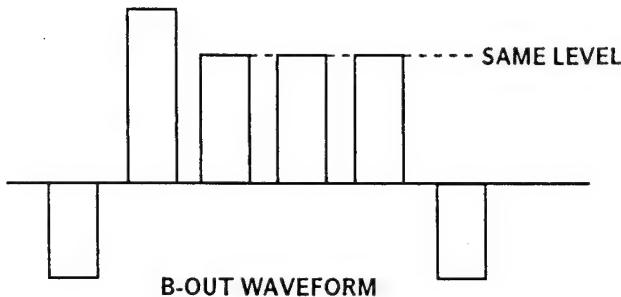
See direct test mode list attached and refer to sub brightness or such for adjustment method.

SUB CONTRAST ADJUSTMENT

1. Input a video that contains small 100% area on the Black Back ground.
2. Enter into service mode and press 01 to have PIC max followed by 21.
3. Adjust data so that 2.5 Vp-p can be obtained at ① CN 0403 (R out).

SUB COLOR ADJUSTMENT

1. Input PAL color bar.
2. Connect an oscilloscope to CN 0403 ③ pin (B OUT) on the C board.
3. Enter into service mode and press 22 of CXA 1587 S, 8 SUB COLOR.
4. Adjust data so that the right sides of the waveform will be the same.

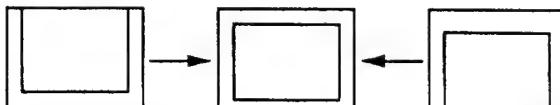
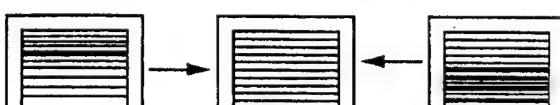
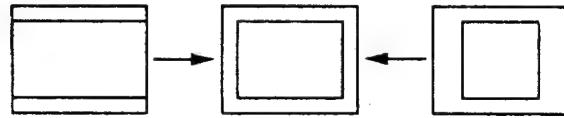
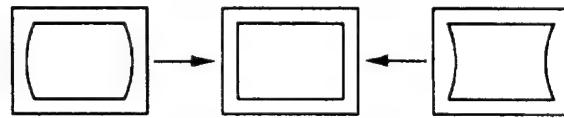
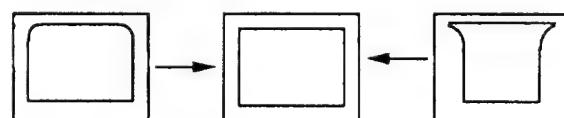
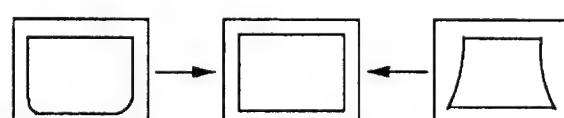
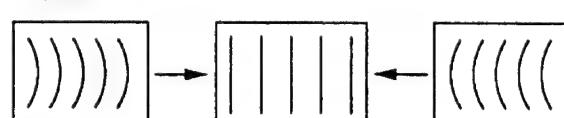
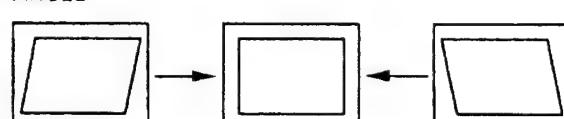
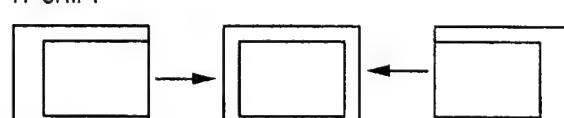


DEFLECTION SYSTEM ADJUSTMENT

1. Enter into service mode and select CXD 2018.
2. Select and adjust each item in order to get an optimum image.

CXD 2018

Item No.	Adjustment item	Data Amount
01	V SIZE	ADJ.
02	V SHIFT	ADJ.
03	S CORRECTION	ADJ.
04	V LINEARITY	ADJ.
05	H SIZE	ADJ.
06	PIN AMP	ADJ.
07	TILT	ADJ.
08	UPPER CORNER	ADJ.
09	LOWER CORNER	ADJ.
10	V BOW	ADJ.
11	ANGLE	ADJ.
12	HV COMP.V	13
13	HV COMP.H	8
14	FRAME SHIFT	OFF
15	FREE RUN 60 Hz	OFF
16	SYSTEM 60 Hz	OFF
17	ASPECT WIDE	OFF
18	DOUBLE SCAM	OFF
19	NON INTERLACE	ON
20	H SHIFT	32
21	N/S CORRECTION	ADJ.

V SIZE**V SHIFT****S CORRECTION****V LINEARITY****H SIZE****PIN AMP****TILT****UPPER CORNER PIN****LOWER CORNER PIN****V BOW****ANGLE****H SHIFT****N/S CORRECTION**

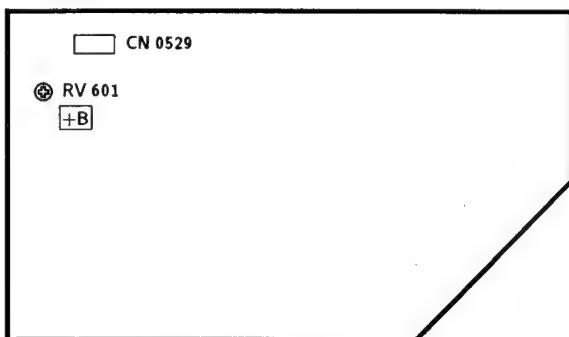
3. Press **OK** button to write the data.

If menu display may disturb the adjustment press **EX** to clear, to resume it, press **EX** again.

4-2. VOLUME ELECTRICAL ADJUSTMENTS

+B (+135 V) ADJUSTMENT (RV 601)

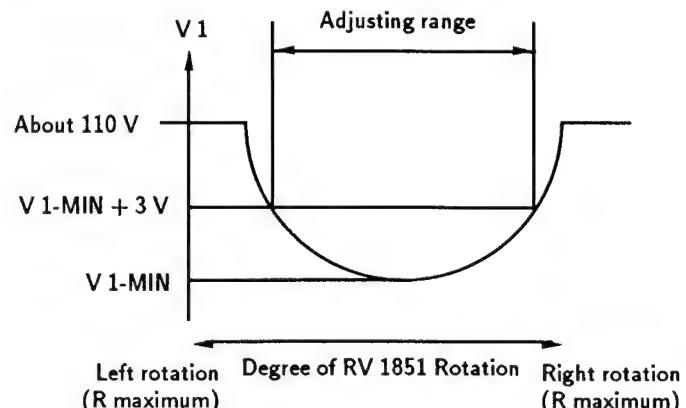
D BOARD



1. Turn on the power of the TV set.
2. Connect a digital multi-meter to ① pin of CN 0529 on D board.
3. Adjust RV 601 on D board to $+135 \pm 0.5$ V.

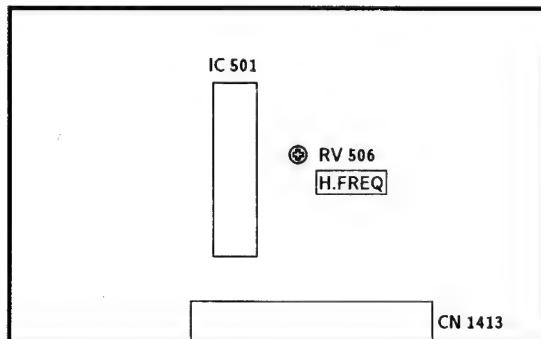
DRIVE PULSE PHASE ADJUSTMENT (RV 1851)

- 1) While measuring the voltage V 1 at both edges of C 1859, rotate RV 1851 so that it becomes minimum. The adjusting range is from (the voltage at which V 1 becomes minimum) V 1 MIN to 3 V, which means, adjust to between V 1 MIN to V 1 MIN + 3 V.



H.FREQ ADJUSTMENT (RV 506)

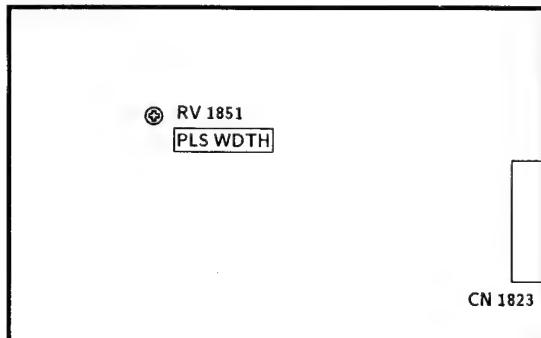
M BOARD



1. Connect GND to ⑫ pin of IC 501 on M board.
2. Connect a frequency counter to ④ pin of IC 501.
3. Adjust RV 506 on M board to $15,625 \text{ kHz} \pm 10 \text{ Hz}$.
4. Remove ⑫ pin of IC 501 from GND.

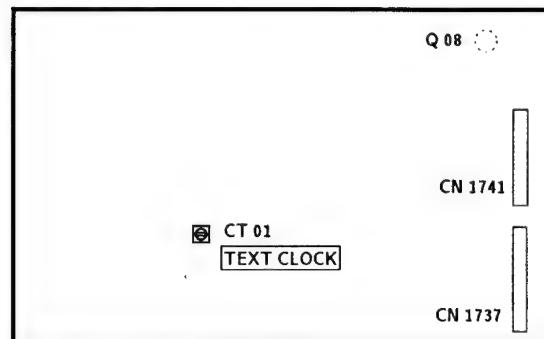
PLS WDTH

D 2 BOARD



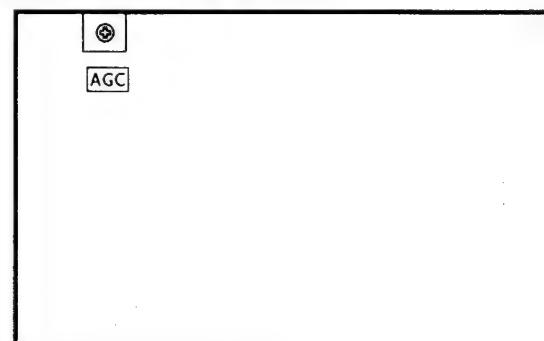
TEXT CLOCK ADJUSTMENT (CT 01)

V BOARD



1. Get TEXT MENU on screen.
2. Connect GND and the base of Q 08 on V board.
3. Adjust CT 01 on V board so that the MENU stands still as much as possible.

AGC ADJUSTMENT (IF BLOCK)



1. Receive off-air signal.
2. Adjust AGC VR so that there is no snow noise and cross-modulation.
3. Change receiving channel and confirm status.

4-3. TEST MODE 2 :

Is available by pressing Test button two times, OSD "TT" appears. The functions described bellow are available by pressing the two numbers. To release the Test Mode 2, press two times 0, or switch TV in Standby Mode.

00	switch Test Mode 2 off
01	picture maximum
02	picture minimum
03	Volume 35%
04	Volume 50%
05	Volume 65%
06	Volume 80%
07	Aging Condition (Volumin., Picture max., Brightness max., Aging 2 Mode of CXA 1587 S, TDA 2595 is locked to CXA 1587S via PIN 34 of μ -Con.)
08	Shipping Condition (Analog Values are RESET due to factory setting, Prog 1 is selected, TT Mode is switched off)
09	dummy
10	Tenth entry is deleted
11	Balance
12	Hue
13-14	dummy
15	Read factory setting from NVM Reads Volume, Balance, Treble, Bass, Brightness, Contrast, Hue, Sharpness, Colour values from ROM to the actual used values (Last Power Memory)
16	Save actual used values as RESET values Memorize actual used values Balance, Treble, Bass, Hue, Sharpness at RESET position in NVM
17	Preset Level for AV Sources
18	dummy
19	Stereo Separation
20	Tenth entry is deleted
21	Sub Contrast
22	Sub Colour
23	Sub Brightness
24-29	dummy

30	Tenth entry is deleted
31	Green Drive
32	Blue Drive
33	Green Cut Off (Auto Cut Off)
34	Blue Cut Off (Auto Cut Off)
35	Red Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
36	Green Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
37	Blue Cut Off (Manual Cut Off) (Auto Cut Off is switched off)
38	Y-Filter adjustment (Trap is switched off and TDA 9145 is switched in forced NTSC Mode)
39	dummy
40	Tenth entry is deleted
41	Default setting of CXA 1587S (Only in Plog 99 available)
42	Default setting of CXA 2018 (Only in Plog 99 available)
43	Default setting of CXA 1526 (Only in Plog 99 available)
44	(all Port High) Not yet
45	(all Port High) Not yet
46-48	dummy
49	Erase the NVM Testbyte (this byte detects already stored NMV's) After selecting this function, switch TV Off and On → the NVM will be preset by μ -Controller. (Not the channel data)

Note: For No. 35, 36, 37 and 38 special pressing (AKB, forced Color Mode, Trap) is selected. After selecting a new Test Mode Number, the AKB is switched ON, the Trap is switched On and TDA 9145 is switched to Auto Search Mode.

In Test Mode 2 the Menu display is switchable by Speaker-Off button.

4-4. ERROR MESSAGE

Self diagnosis system can operate as follows.

- When MP can't get the acknowledge back from the device, LED starts flashing according to the table as attached.

In case of more errors in parallel, the blinking error shows max. Priority according to the error number (e.g. error 2 and error 5 appears together, then LEDs show error 2).

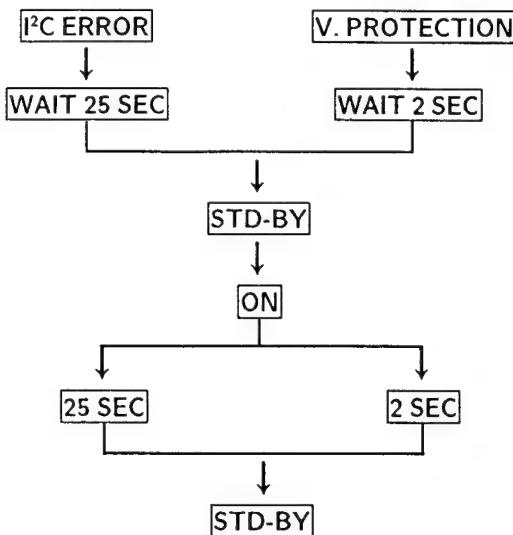


TABLE OF ERRORS

ERROR COUNT	IC TYPE	FUNCTION
1	I ² C BUS	SDA low
2	X 24 C 16	EEPROM
3	SDA 3202	Tuner PII
4	TDA 9145	Colour decoder
5	CXA 1587S	RGB/Jungle
6	TDA 6612	Sound processor
7	CXD 2018	V deflection
8	CXA 1545	AV switch
11	SDA 5248	Text
13		V protection

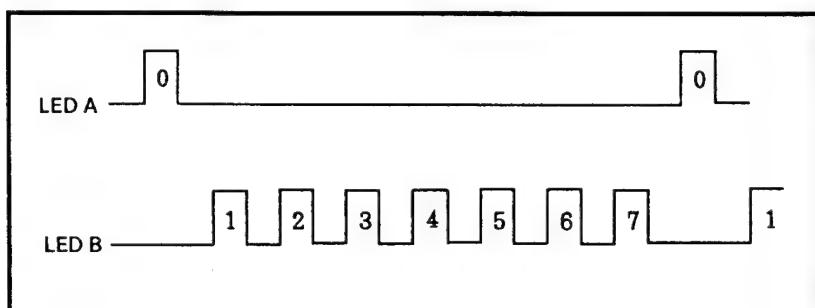
Stand by LED blinking

No IK return

4-5. ERROR I²C BUS DIAGNOSIS SYSTEM IN AE 2 CHASSIS

For all ICs in AE2 chassis which are necessary to get picture and sound there is a built in error I²C Bus diagnosis system.

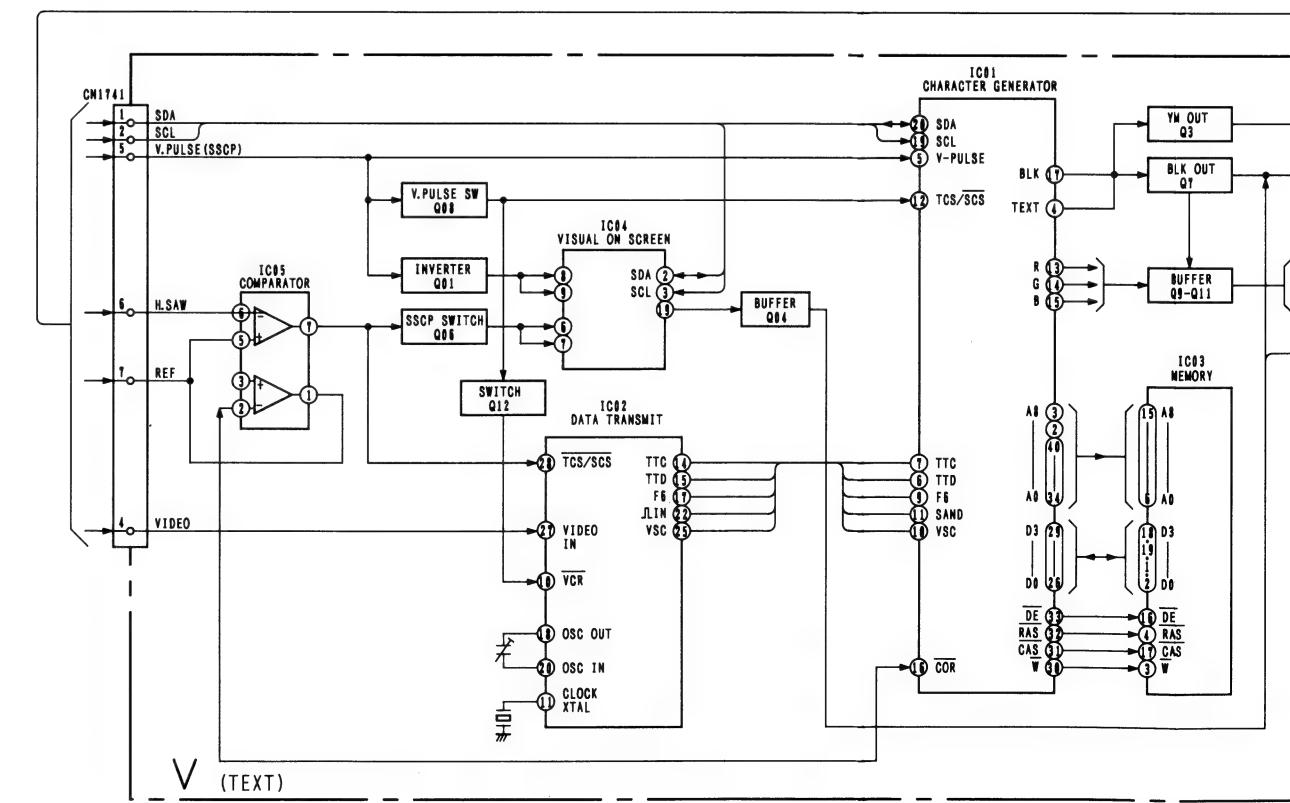
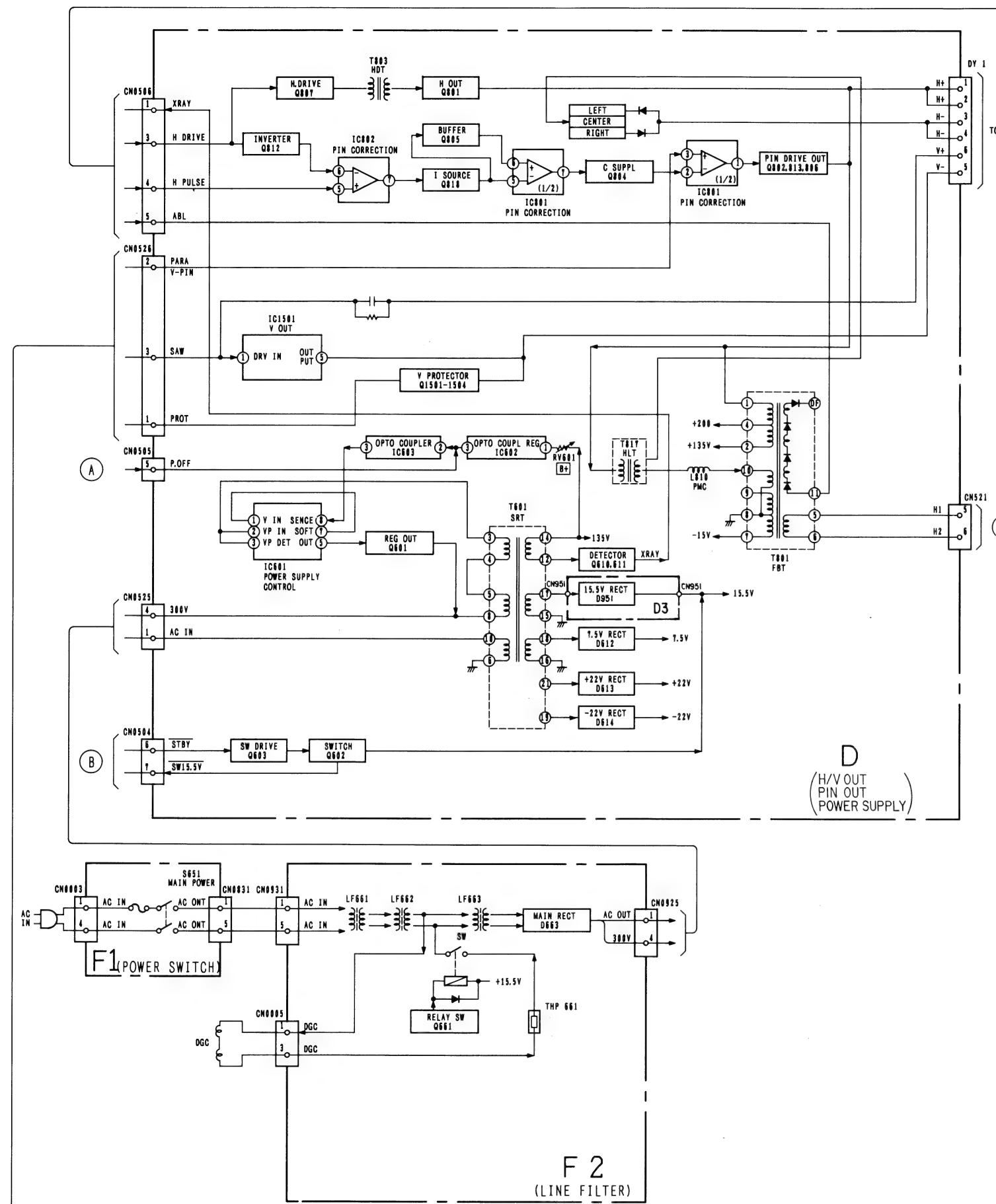
In case of no acknowledge bit, LED A and LED B start blinking as shown.

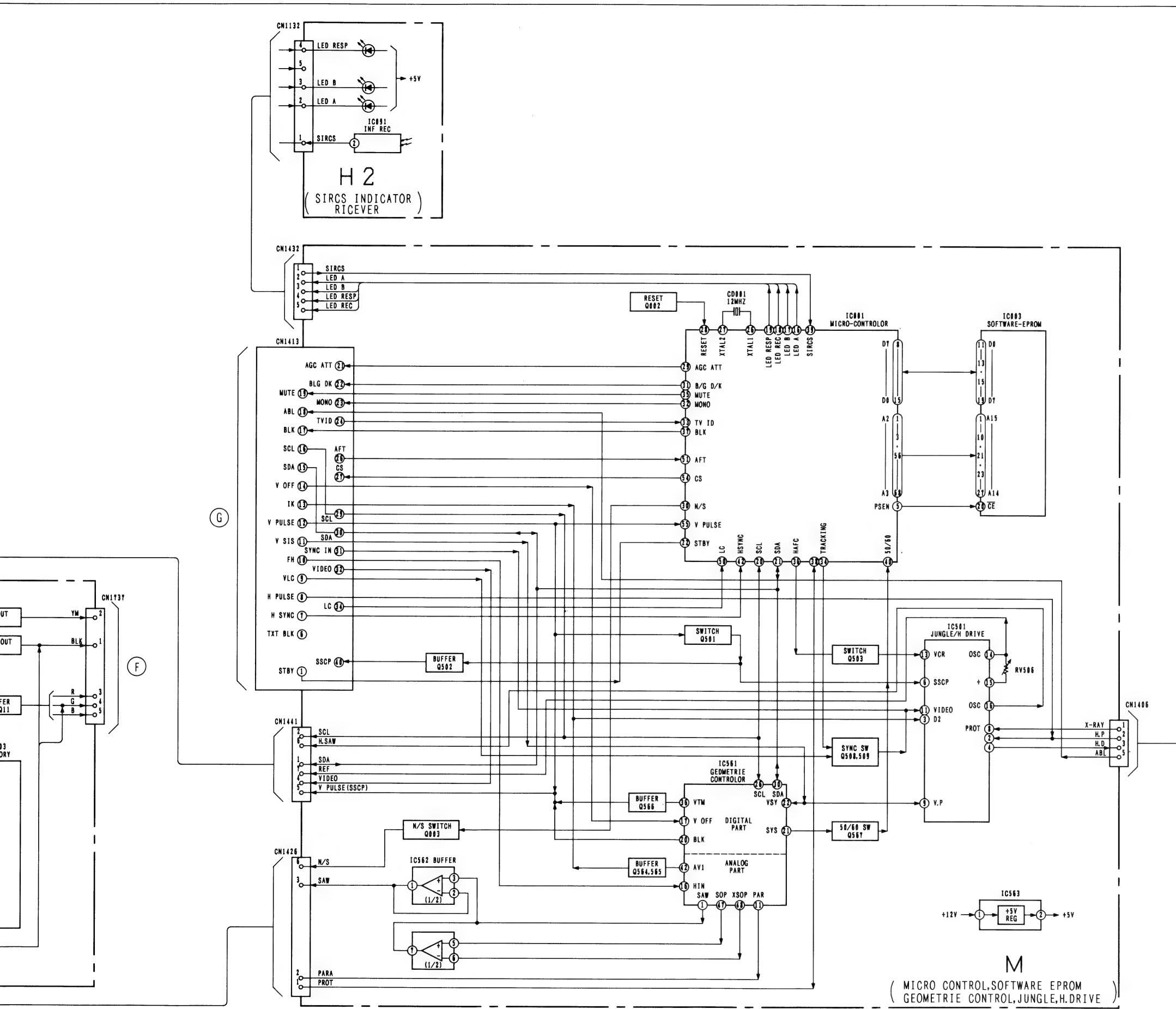


**SECTION 5
DIAGRAMS**

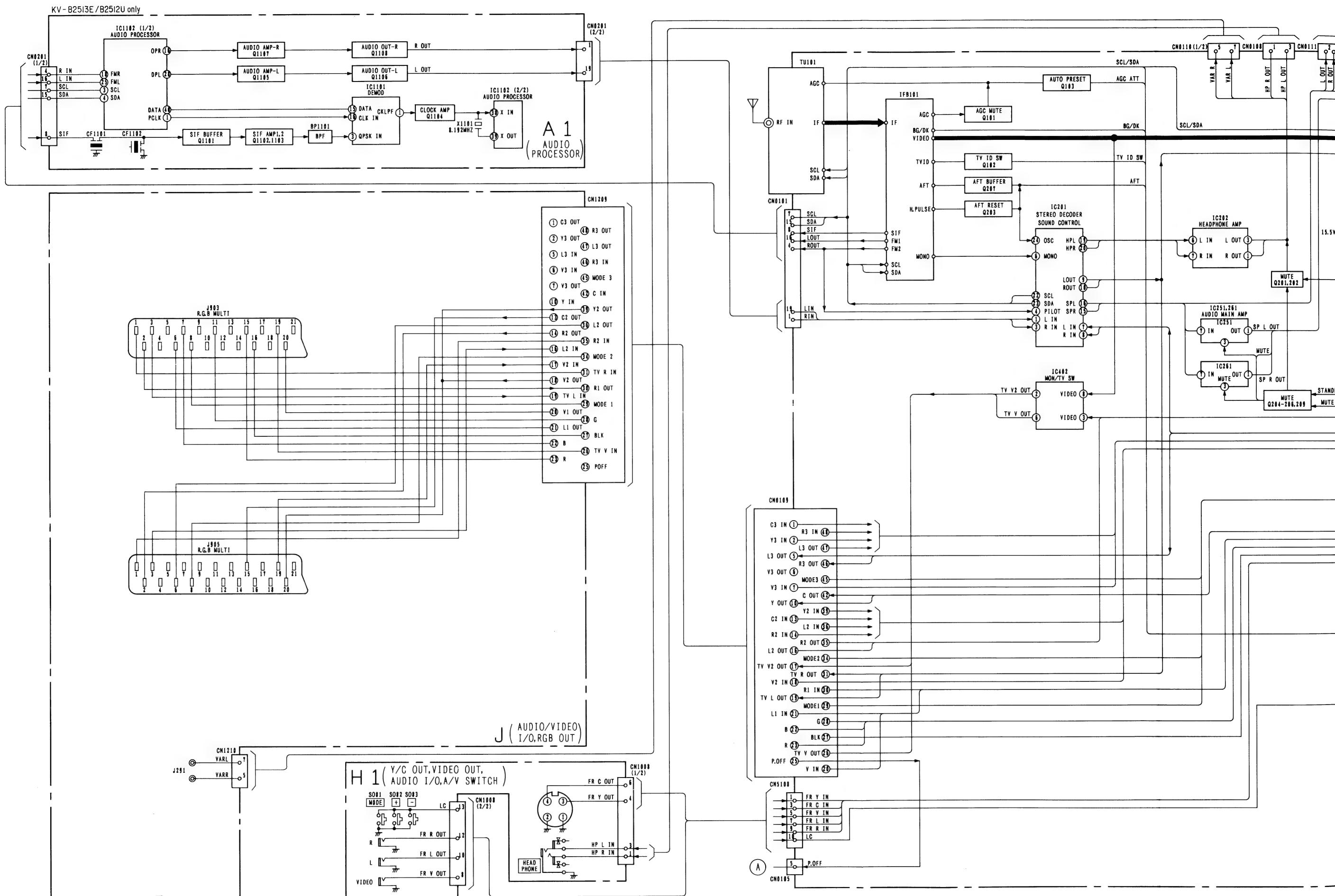
KV-B251 KV-B251

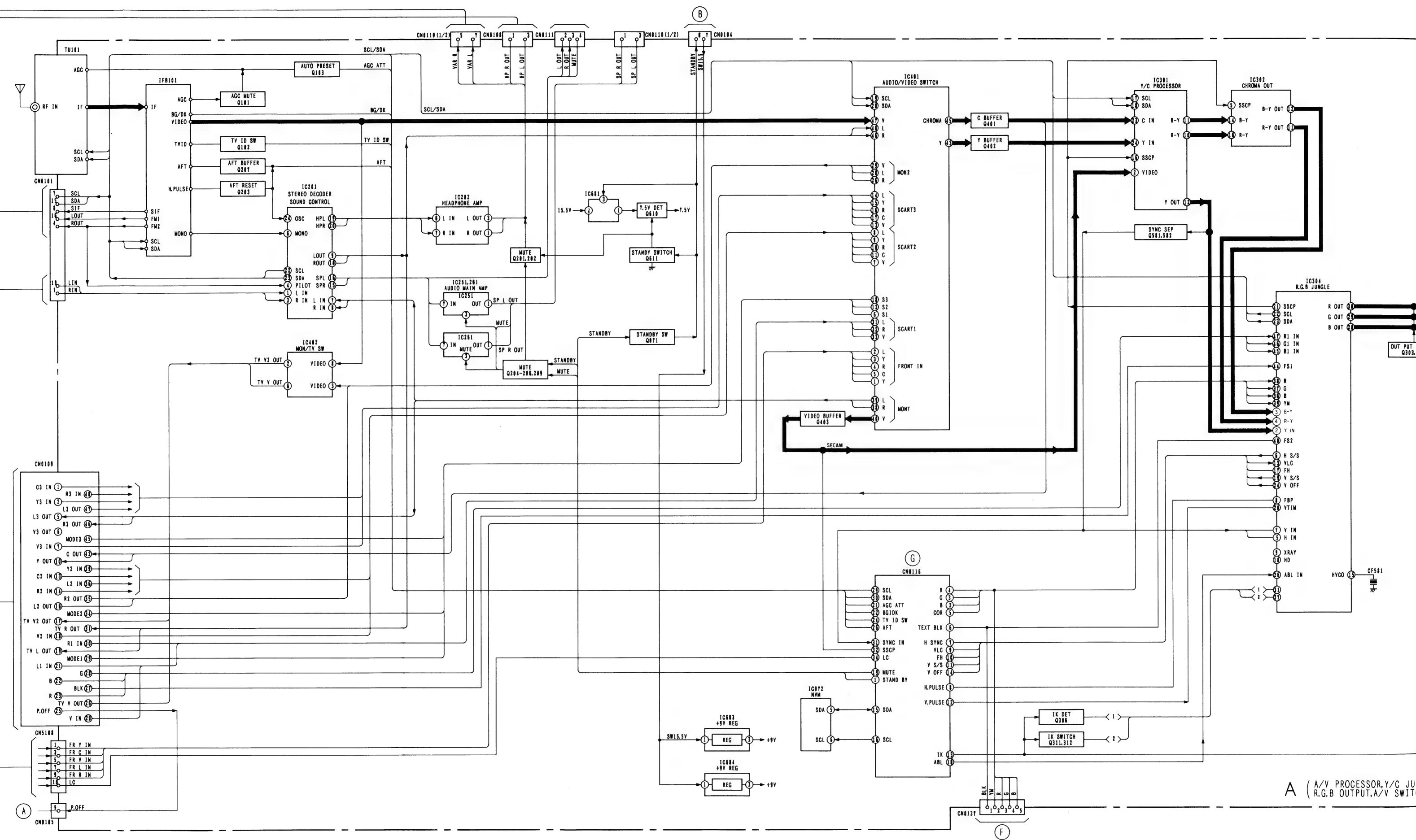
5-1. BLOCK DIAGRAM (1)

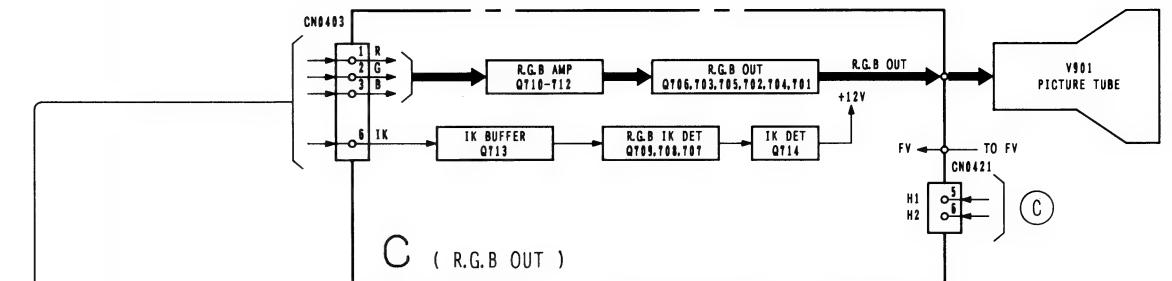
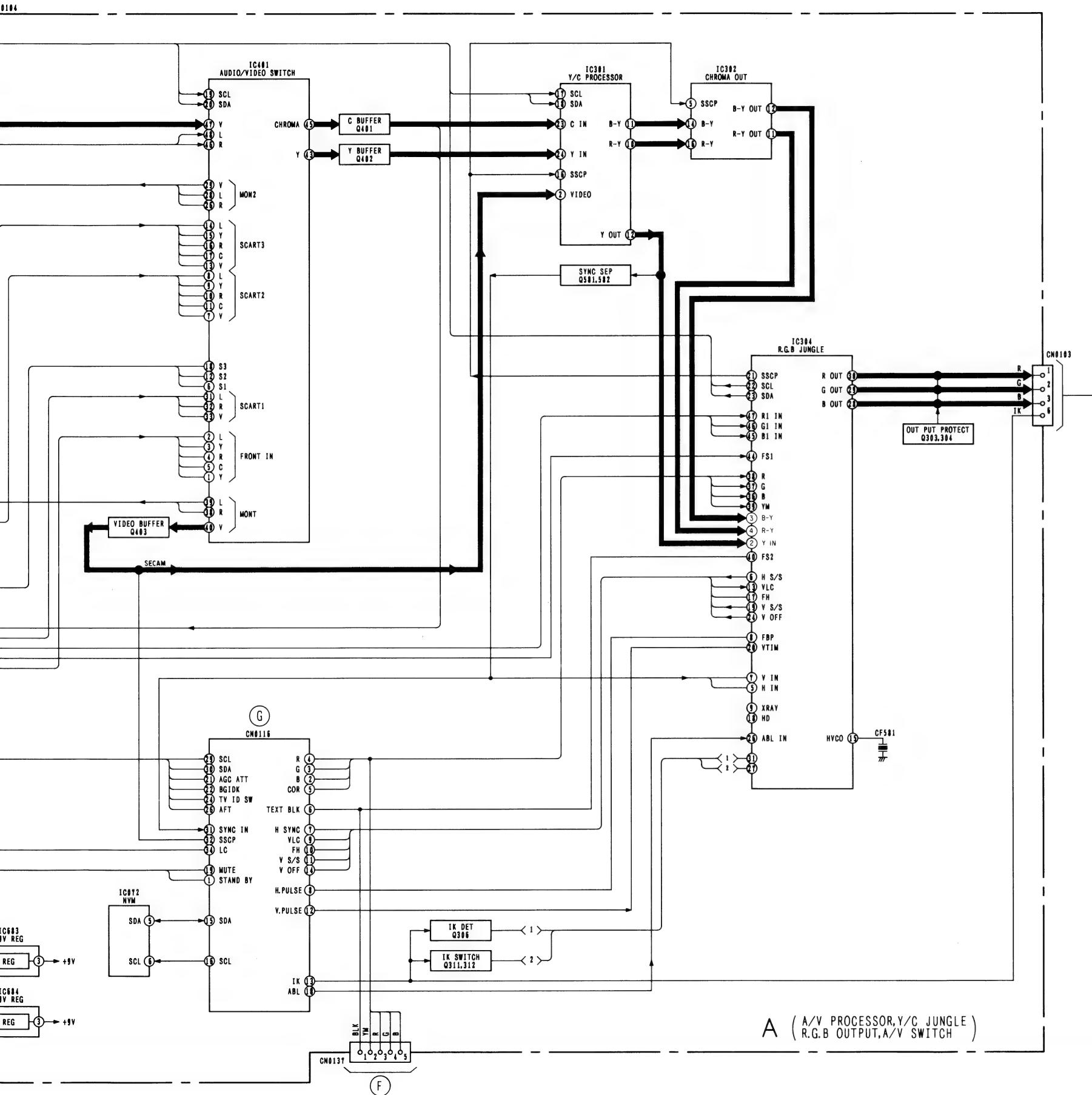




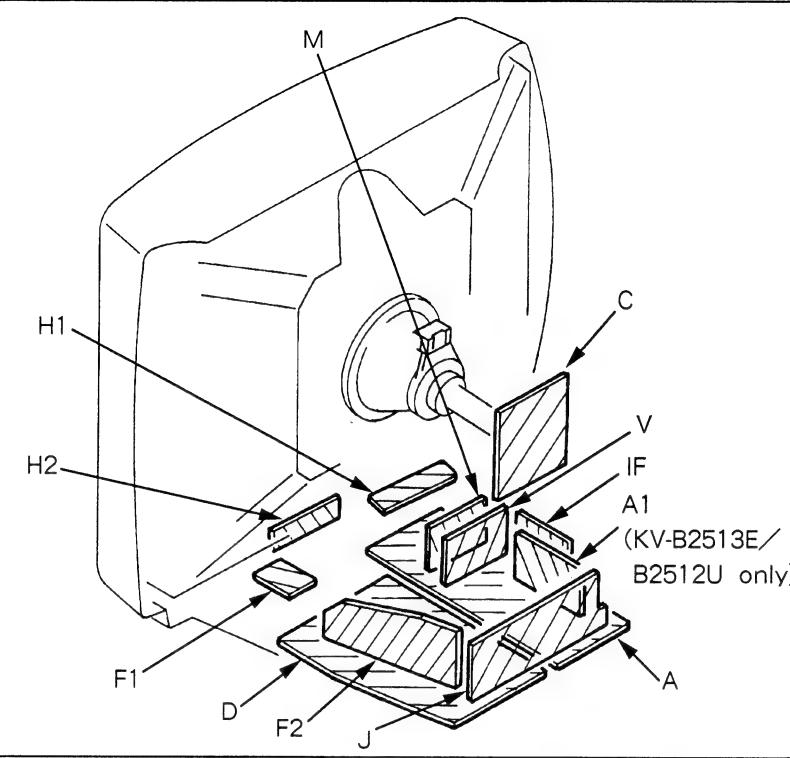
5-2. BLOCK DIAGRAM (2)







5-3. CIRCUIT BOARDS LOCATION



Reference information	
RESISTOR	RN : METAL FILM
	RC : SOLID
FPRD	: NONFLAMMABLE CARBON
FUSE	: NONFLAMMABLE FUSIBLE
RS	: NONFLAMMABLE METAL OXIDE
RB	: NONFLAMMABLE CEMENT
RW	: NONFLAMMABLE WIREWOUND
※	: ADJUSTMENT RESISTOR
COIL	LF-8L : MICRO INDUCTOR
CAPACITOR	TA : TANTALUM
	PS : STYROL
	PP : POLYPROPYLENE
	PT : MYLAR
MPS	: METALIZED POLYESTER
MPP	: METALIZED POLYPROPYLENE
ALB	: BIPOLAR
ALT	: HIGH TEMPERATURE
ALR	: HIGH RIPPLE

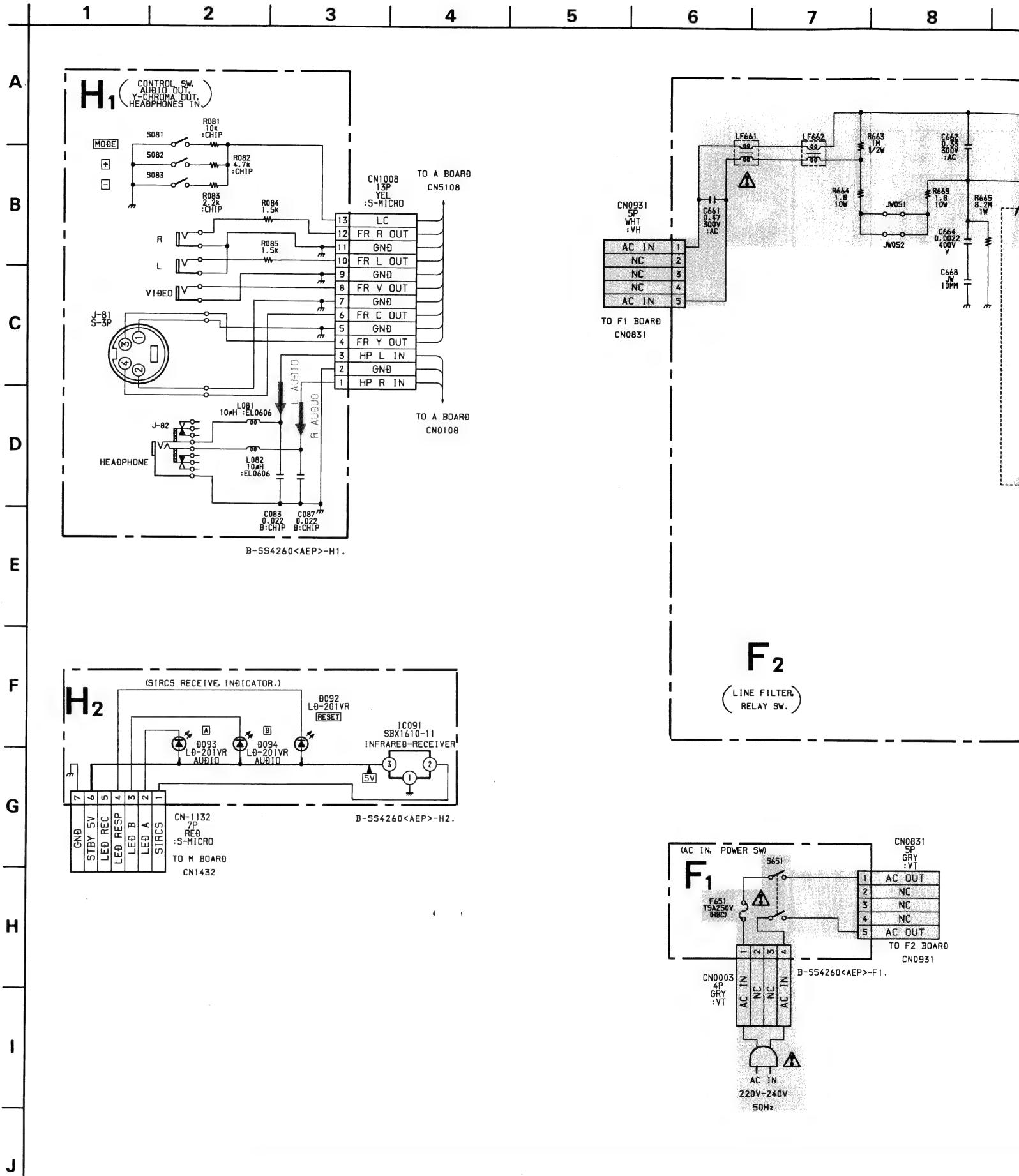
Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et par une marque sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

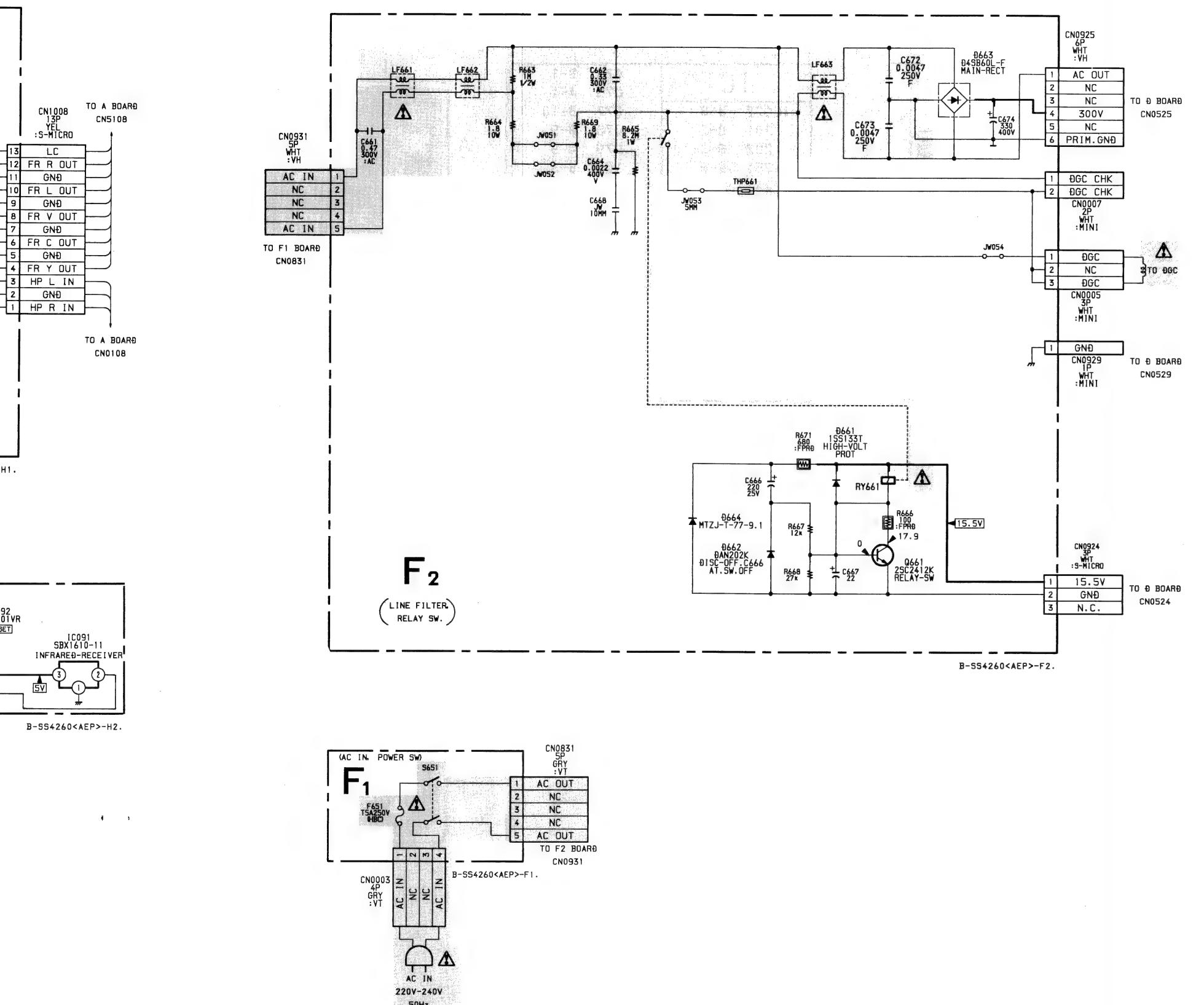
5-4. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :

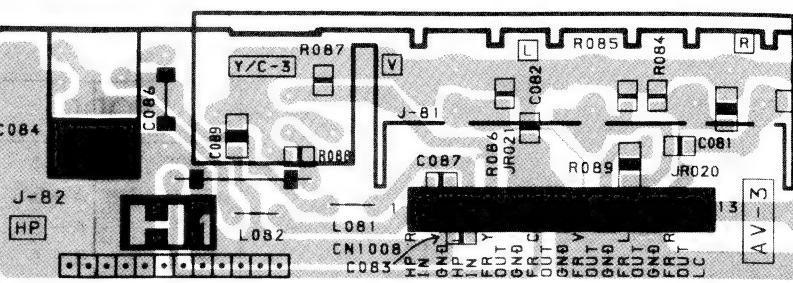
- All capacitors are in μ F unless otherwise noted.
 μ F : $\mu\mu$ F 50WV or less are not indicated except for electrolytic.
- Indication of resistance, which dose not have one for rating electrical power, is as follows.
- Pitch : 5mm
Rating electrical power : 1/4W
- Chip resistor is in 1/10W.
- All resistors are in ohms.
 $k\Omega = 1000\Omega$, $M\Omega = 1000K\Omega$
- : nonflammable resistor.
- : fusible resistor.
- Δ : internal component.
- : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10M Ω digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- $-$: B+ bus.
- $--$: B- bus.
- : signal path.(RF)
- \perp : earth - ground
- \perp/\perp : earth - chassis



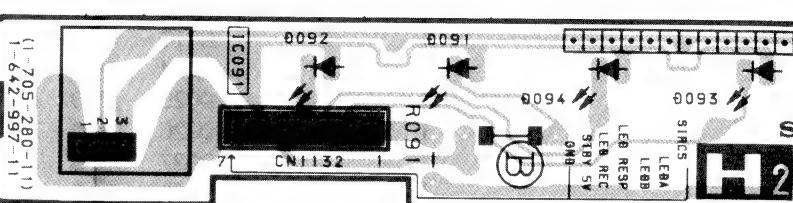
3 | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13**



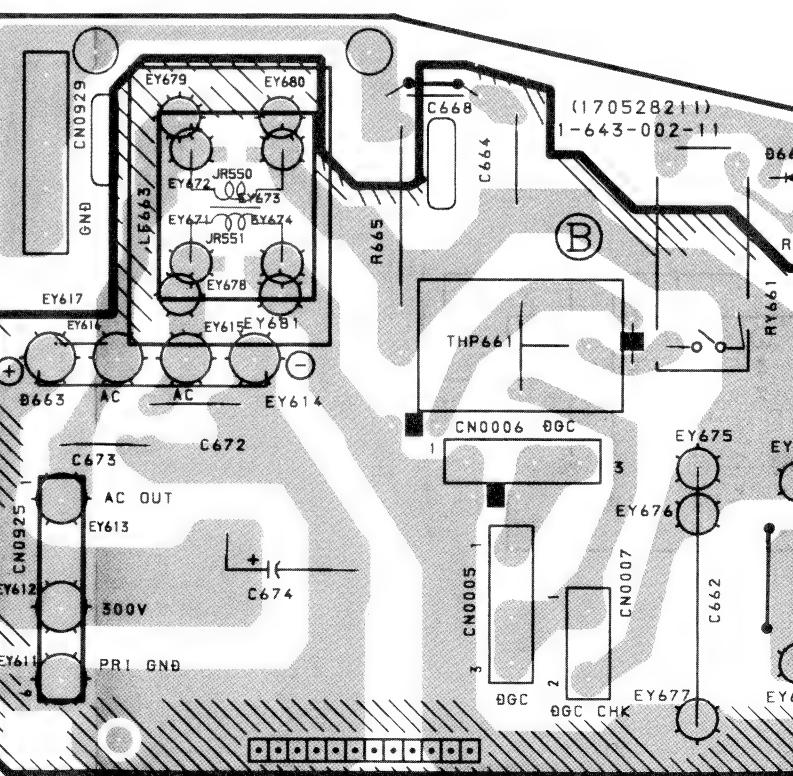
H1 BOARD –



H₂ BOARD -

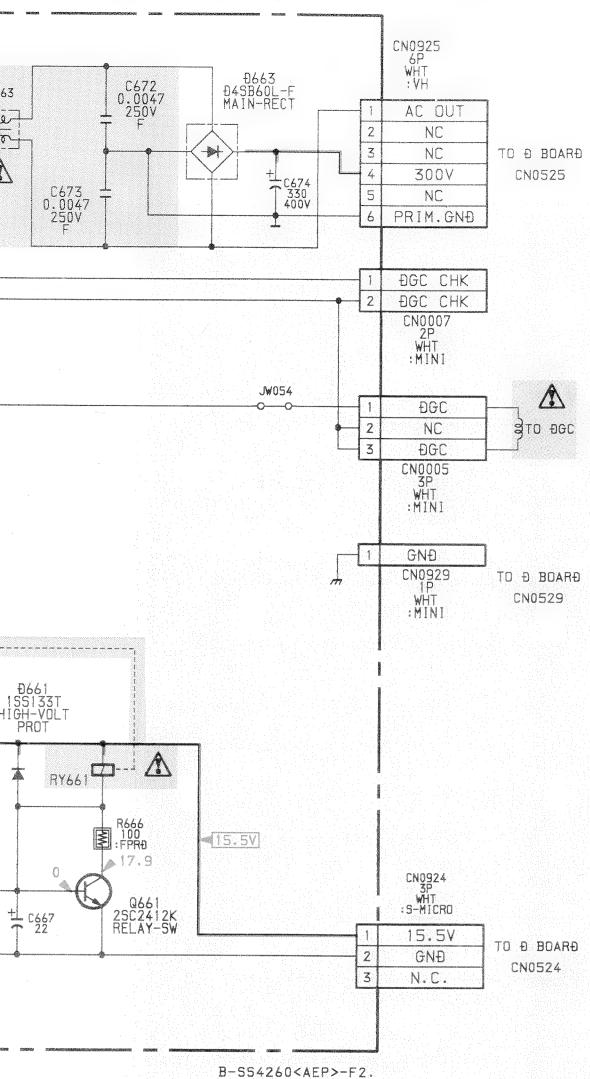


E2 BOARD =

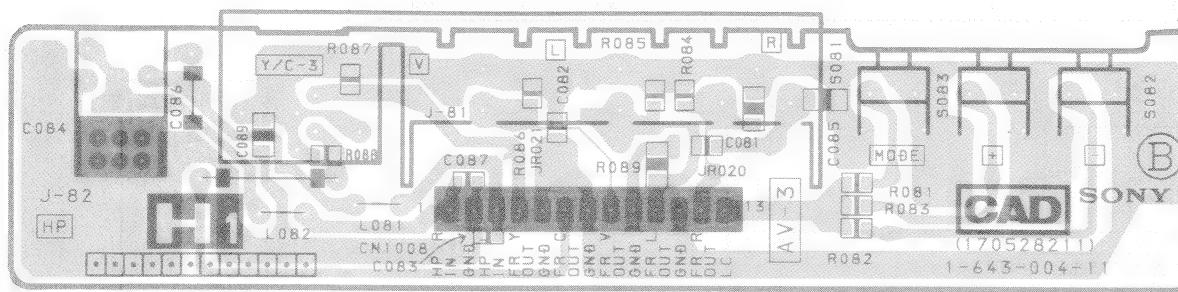


11 12 13

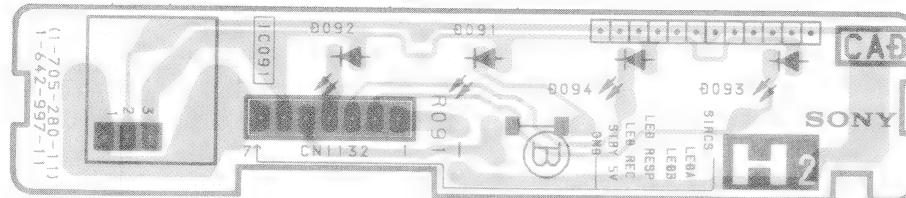
KV-B251 KV-B251

H1CONTROL SW, AUDIO OUT,
Y-CHROMA OUT,
HEADPHONE IN**H2**SIRCS RECEIVER,
INDICATOR**F1**AC IN,
POWER SW**F2**LINE FILTER,
RELAY SW

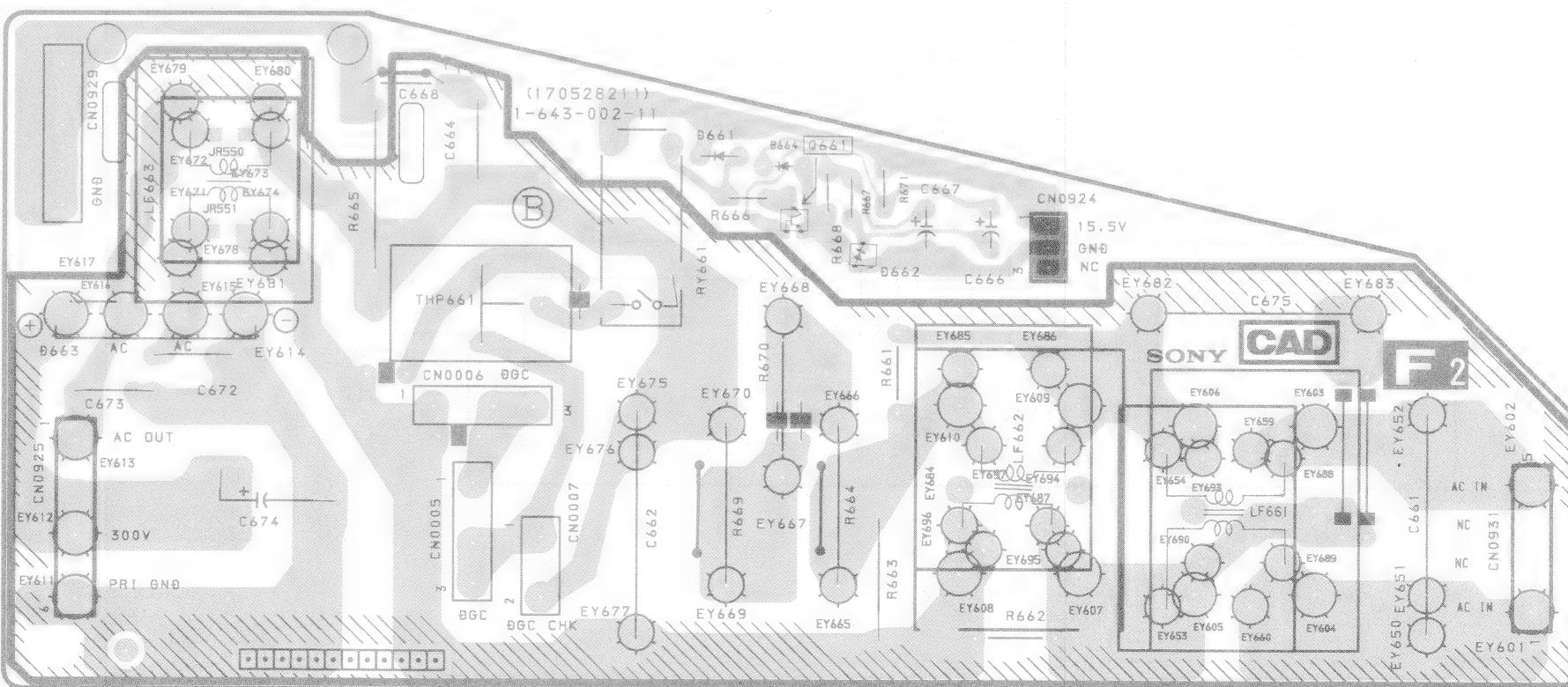
- H1 BOARD -



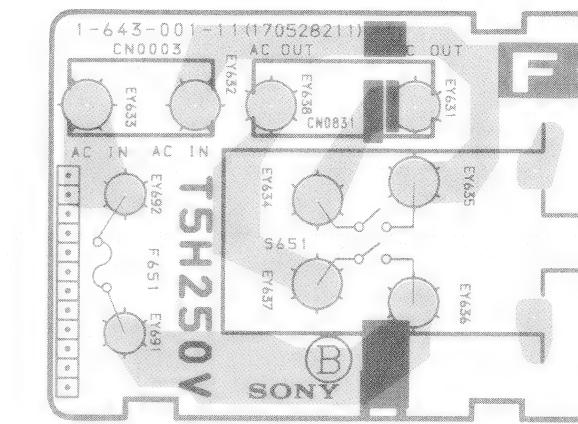
- H2 BOARD -



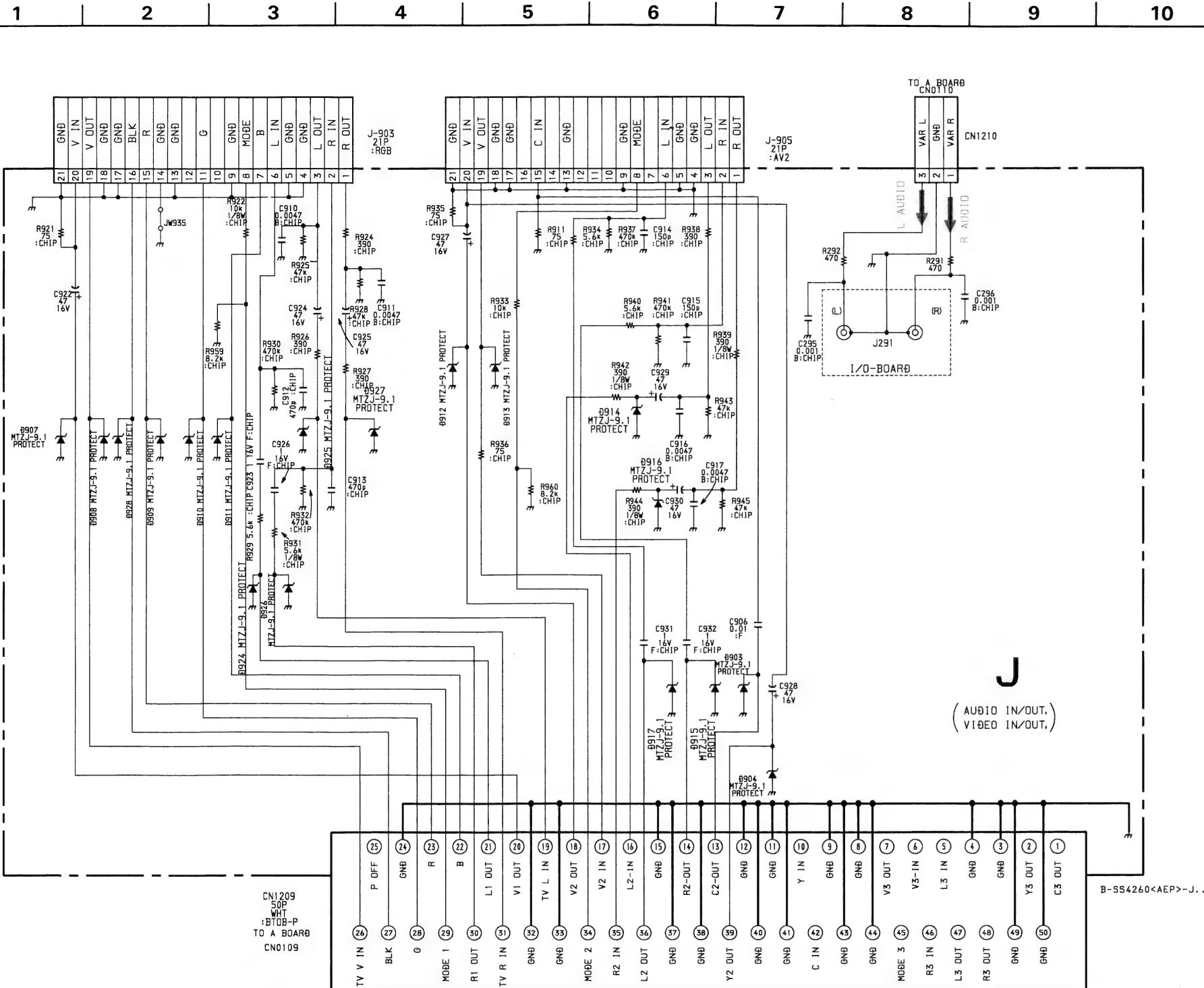
- F2 BOARD -



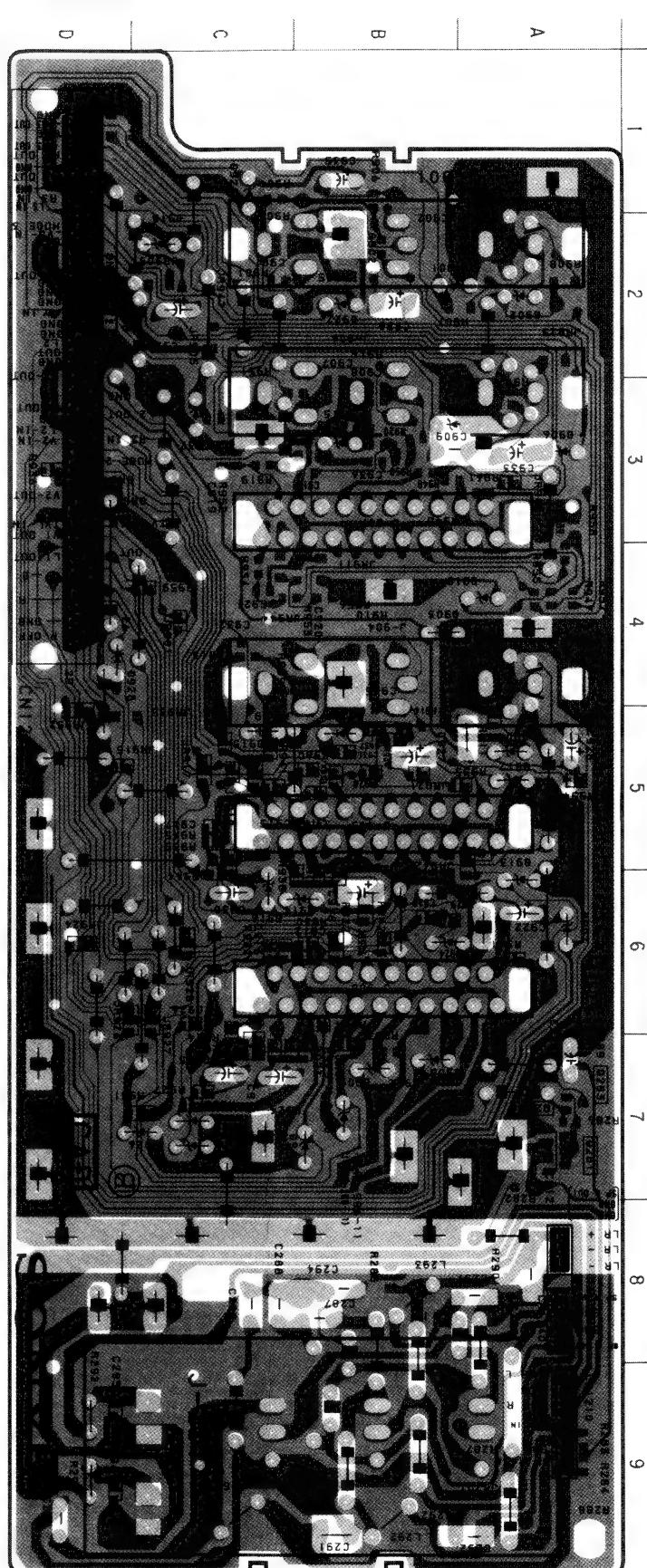
- F1 BOARD -



J [AUDIO IN/OUT,
Y-CHROMA IN/OUT,
VIDEO IN/OUT] **A** [TUNER, AUDIO, CONTROL,
AV SWITCH, RGB JUNGLE,
Y/C PROCESSOR]



DIODE	
D903	B - 4
D904	A - 5
D907	A - 6
D908	B - 7
D909	B - 7
D910	B - 7
D911	B - 7
D912	A - 5
D913	A - 6
D914	B - 6
D915	C - 5
D916	C - 6
D917	B - 5
D924	B - 6
D925	C - 7
D926	C - 7
D927	C - 7
D928	D - 4



Note :

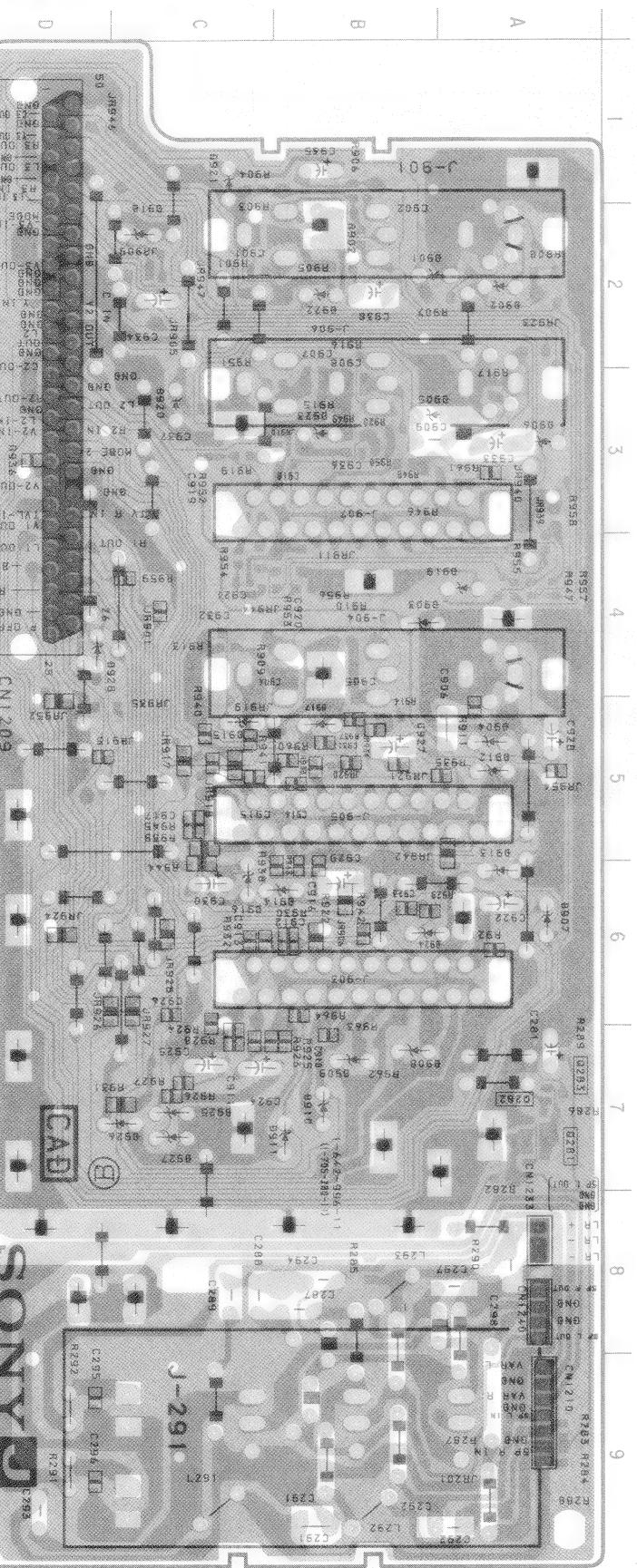
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

J [AUDIO IN/OUT,
Y-CHROMA IN/OUT,
VIDEO IN/OUT] **A** [TUNER, AUDIO, CONTROL, AUDIO AMP
AV SWITCH, RGB JUNGLE,
Y/C PROCESSOR]

— J BOARD —

DIODE

D903	B - 4
D904	A - 5
D907	A - 6
D908	B - 7
D909	B - 7
D910	B - 7
D911	B - 7
D912	A - 5
D913	A - 6
D914	B - 6
D915	C - 5
D916	C - 6
D917	B - 5
D924	B - 6
D925	C - 7
D926	C - 7
D927	C - 7
D928	D - 4



— A BOARD —

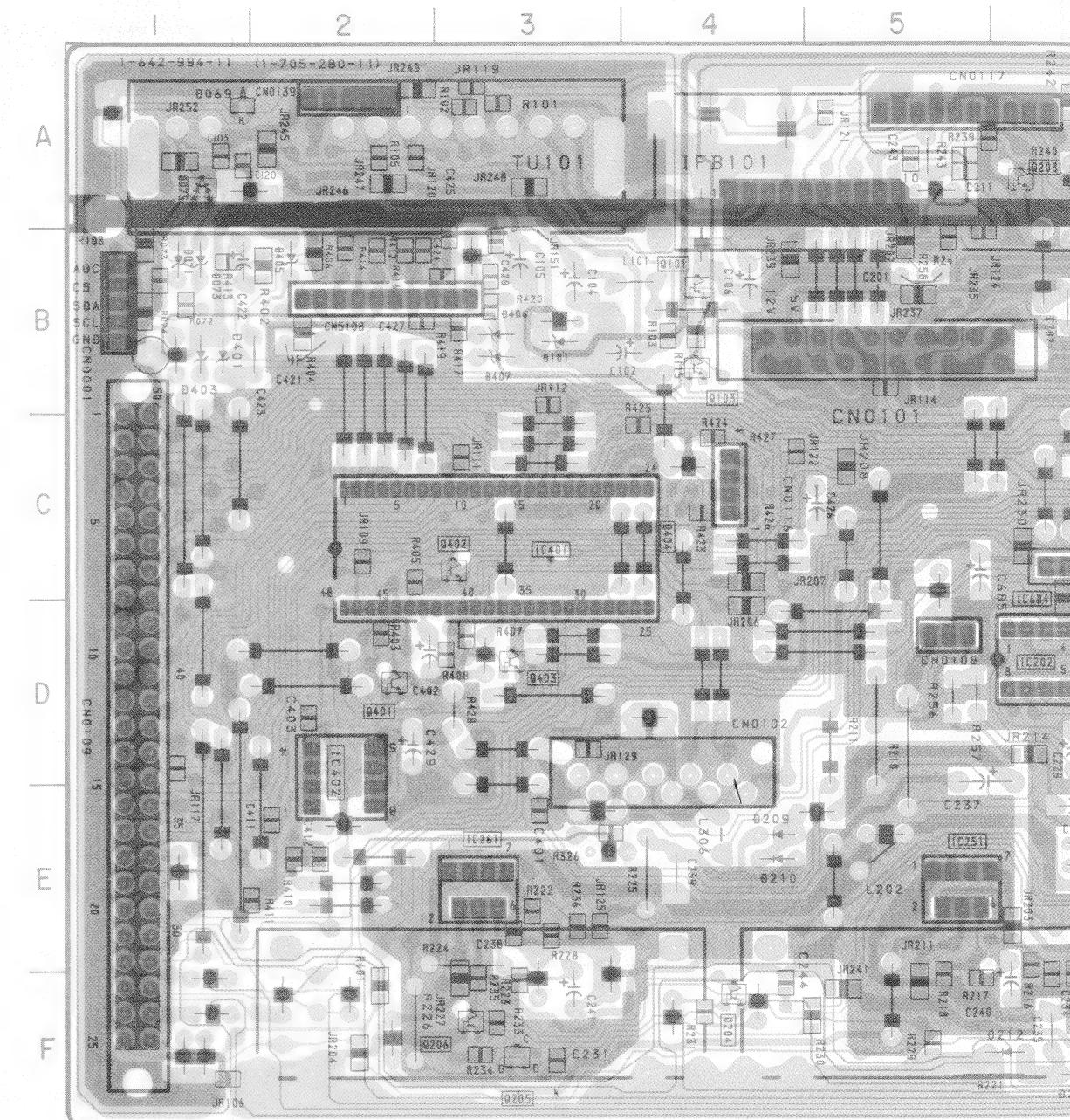
IC	
IC072	B-8
201	B-7
202	B-6
251	E-5
261	E-3
301	A-10
302	A-13
304	C-13
401	C-3
402	B-2
681	E-12
683	F-11
684	C-6
073	B-1
075	A-1
077	B-10
078	B-9
079	B-9
101	B-3
205	A-9
206	F-10
207	F-10
208	F-10
209	E-4
210	E-4
211	F-6
212	F-6
213	F-7
301	B-11
302	A-12
303	C-11
304	B-13
305	E-11
306	E-13
307	E-13
308	E-13
310	B-10
311	B-12
381	C-11
401	B-1
403	B-1
405	B-2
406	B-3
407	B-3
571	C-12
681	F-11
682	F-11

TRANSISTOR

Q071	F-12
101	B-4
102	A-9
103	B-4
201	E-6
202	E-6
203	A-6
204	F-4
205	F-3
206	F-3
207	B-8
209	F-10
303	A-9
304	E-13
306	E-12
308	B-12
309	B-11
311	B-10
312	B-10
401	B-2
402	C-3
403	B-3
581	C-11
582	C-11
610	F-12
611	F-12
683	F-11

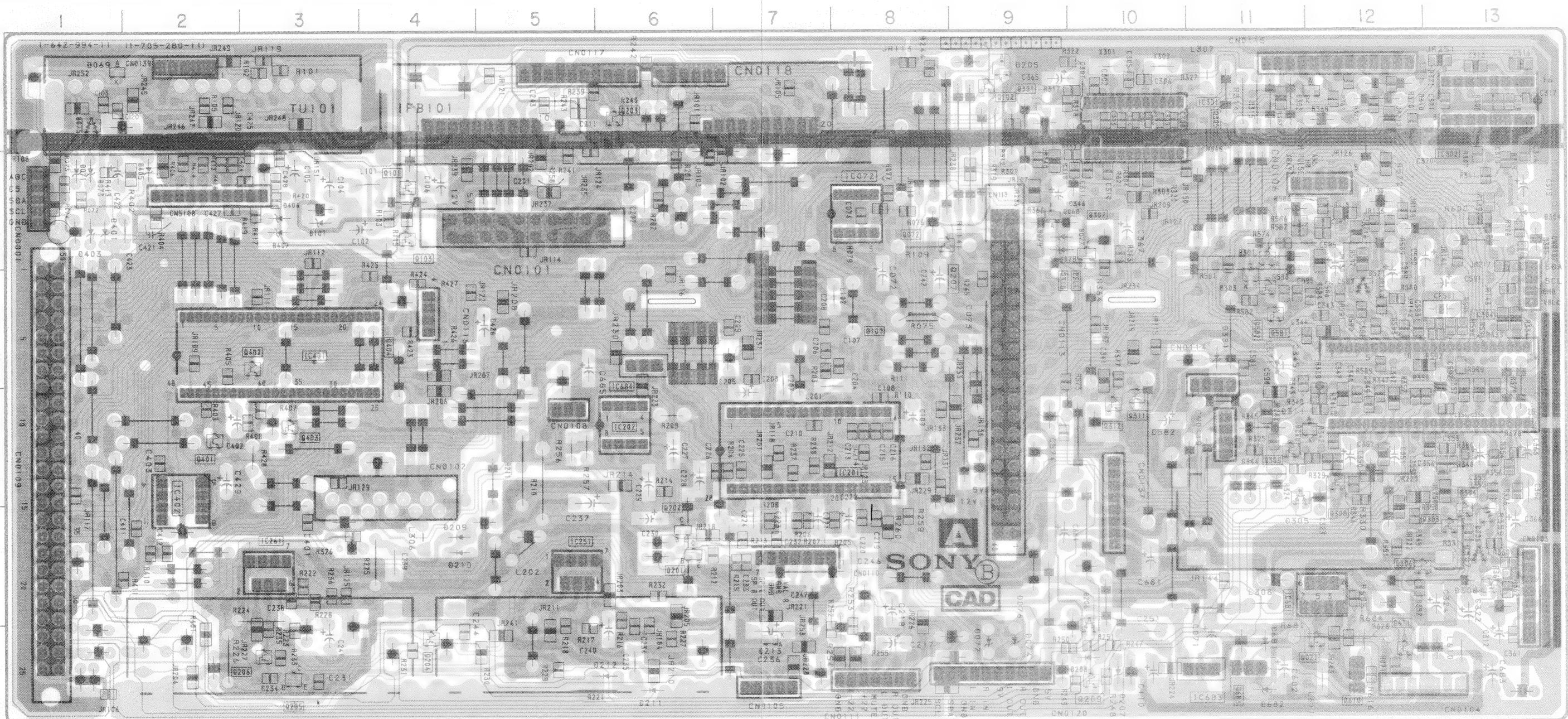
DIODE

0068	B-9
069	A-1
071	B-1



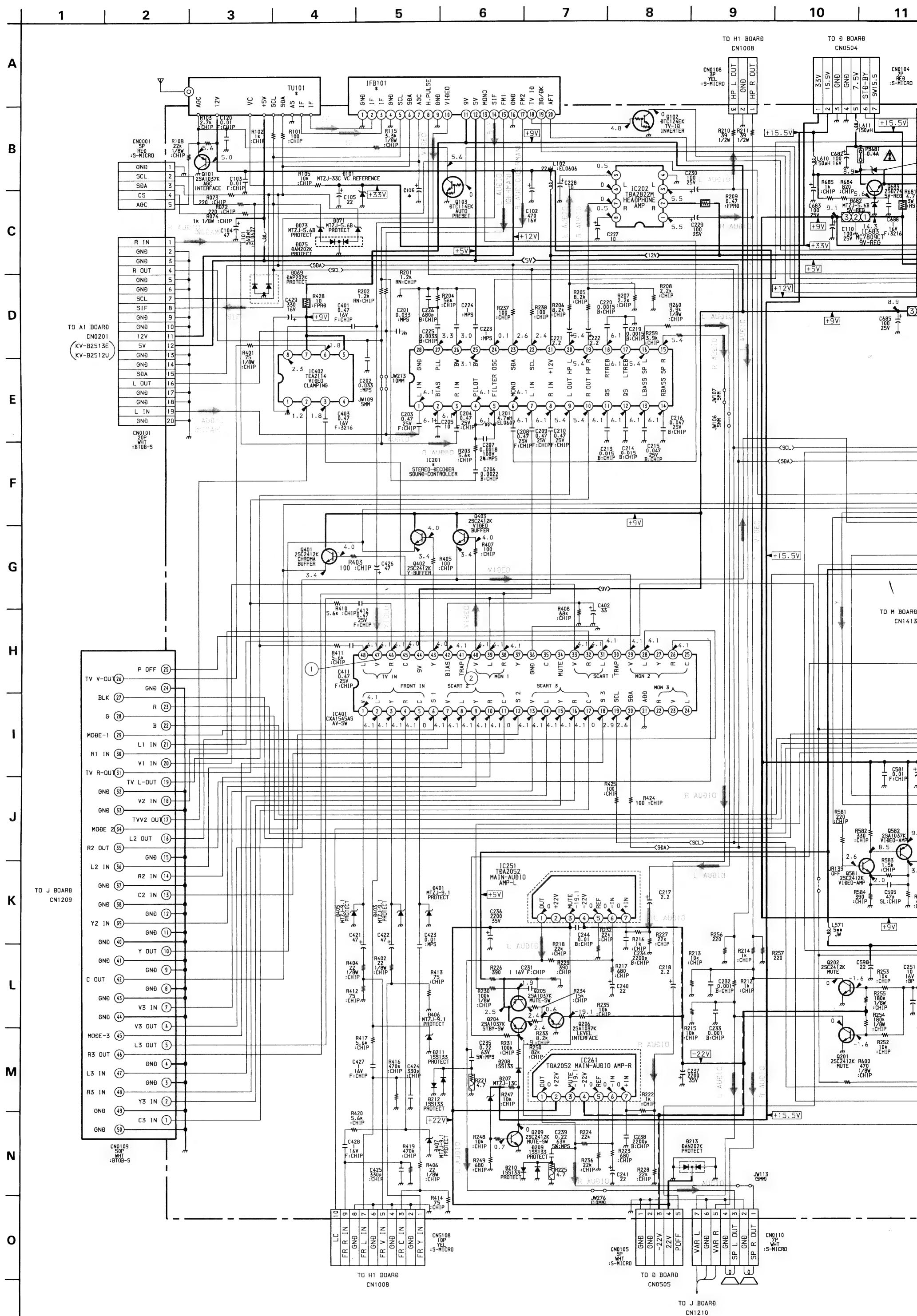
- A BOARD -

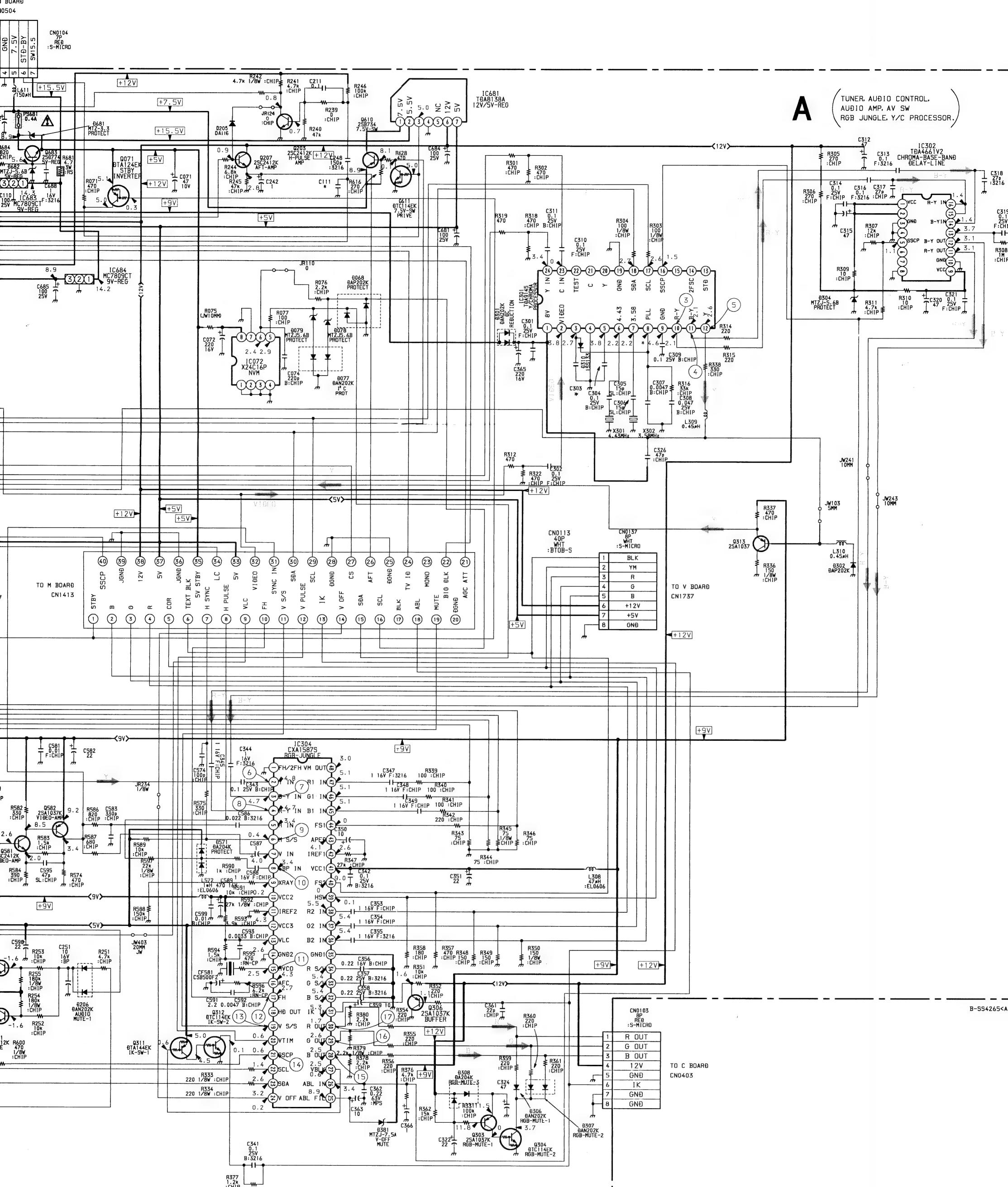
073	B-1
075	A-1
077	B-10
078	B-9
079	B-9
101	B-3
205	A-9
206	F-10
207	F-10
208	F-10
209	E-4
210	E-4
211	F-6
212	F-6
213	F-7
301	B-11
302	A-12
303	C-11
304	B-13
305	E-11
306	E-13
307	E-13
308	E-13
310	B-10
311	B-12
381	C-11
401	B-1
403	B-1
405	B-2
406	B-3
407	B-3
571	C-12
581	F-11
582	F-11



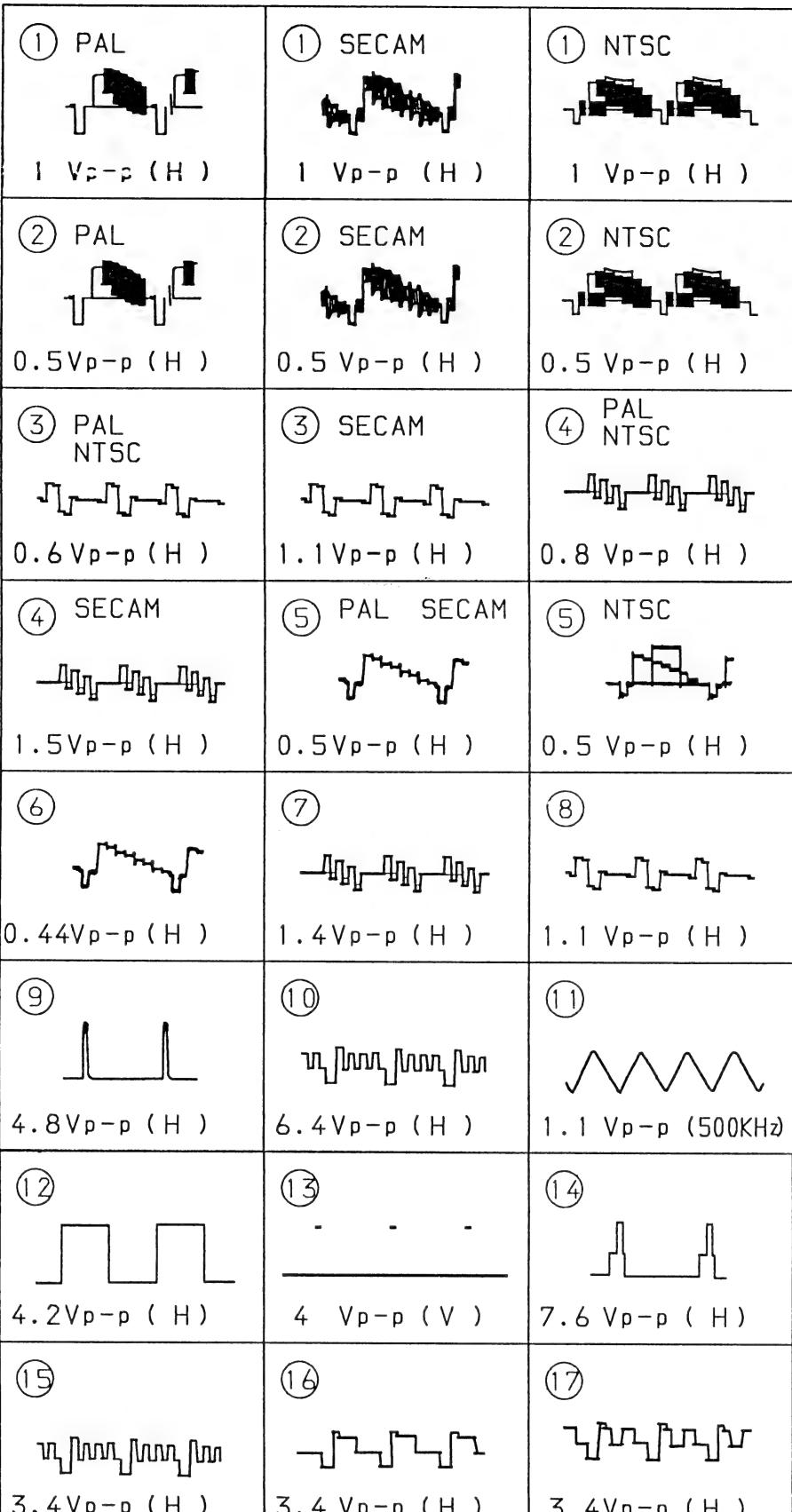
Note :

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.





• WAVEFORMS A BOARD



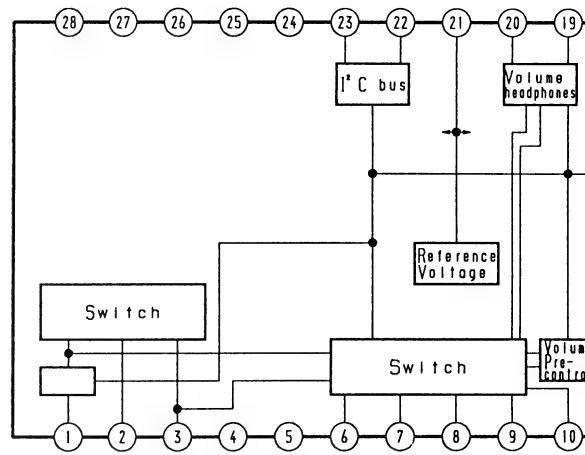
As to the voltage value shown by the mark * on the Schematic Diagram, see another list.

	PAL	SECAM	NTSC	NTSC
IC301 ⑧	5.0	4.6	3.58	4.43

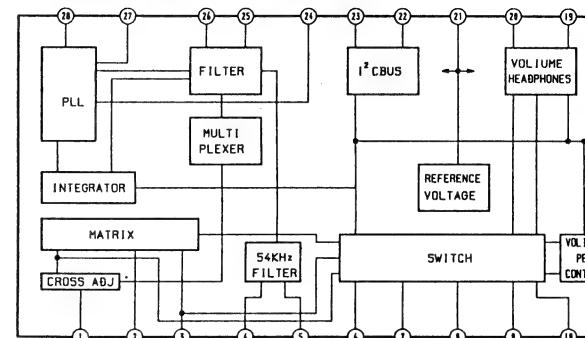
B-SS4265<AEPA>-A..

	KV-B2511D KV-B2511A KV-B2511K	KV-B2511B	KV-B2513E	KV-B2512U
C106	4.7/50V	10/50V	4.7/50V	4.7/50V
C111	-	0.001/50V	-	-
CN0101	-	-	20P	20P
IC201	TDA6612	TDA6612	TDA6612	TDA6622
IFB101	IFH-389	IFH-389F	IFH-389	IFH-395
TU101	UV-916H	UV-916H	UV-916H	U-944C

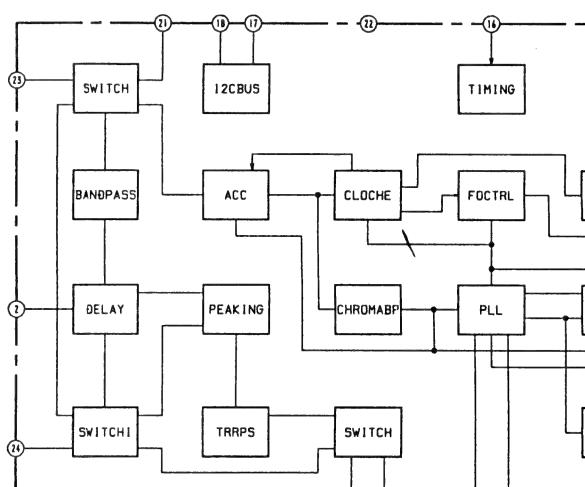
• A BOARD IC201 TDA6622 (KV-B2512U only)



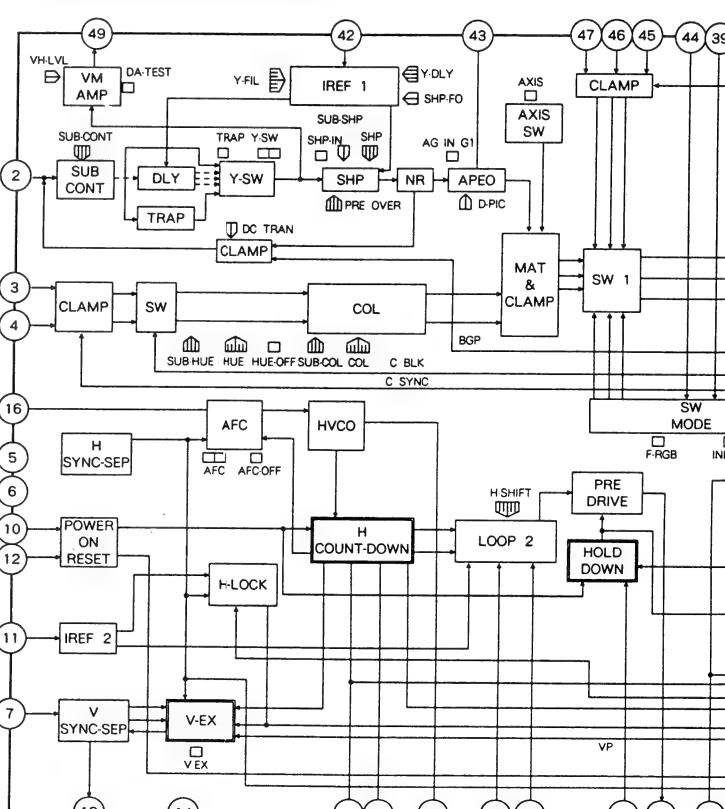
• A BOARD IC201 TDA6612



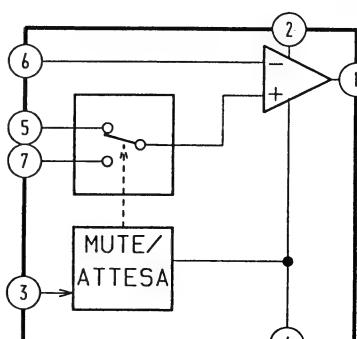
• A BOARD IC301 TDA9145



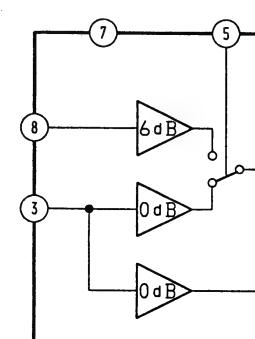
• A BOARD IC304 CXA1587S



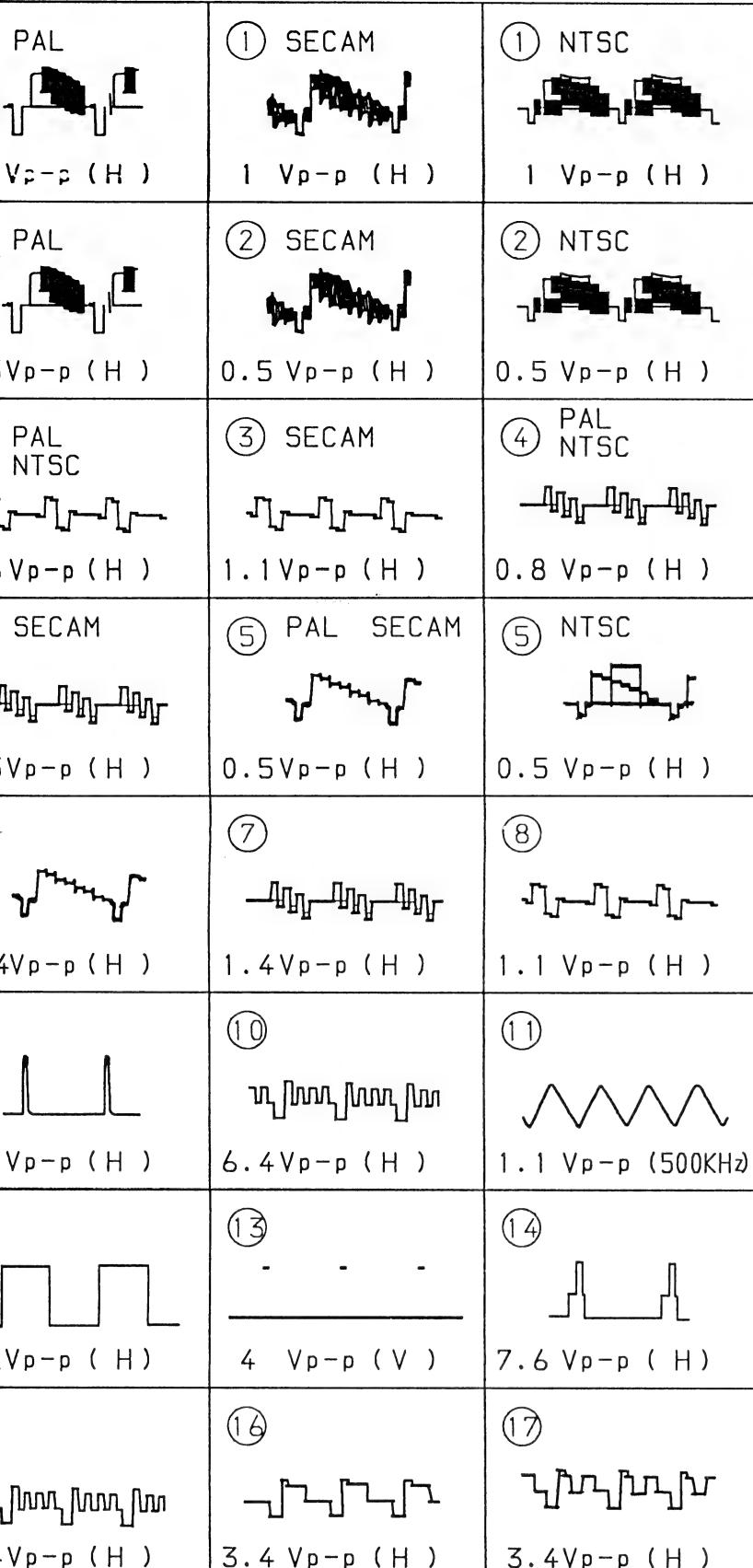
• A BOARD IC251 TDA2052



• A BOARD IC402 TE



REFORMS A BOARD

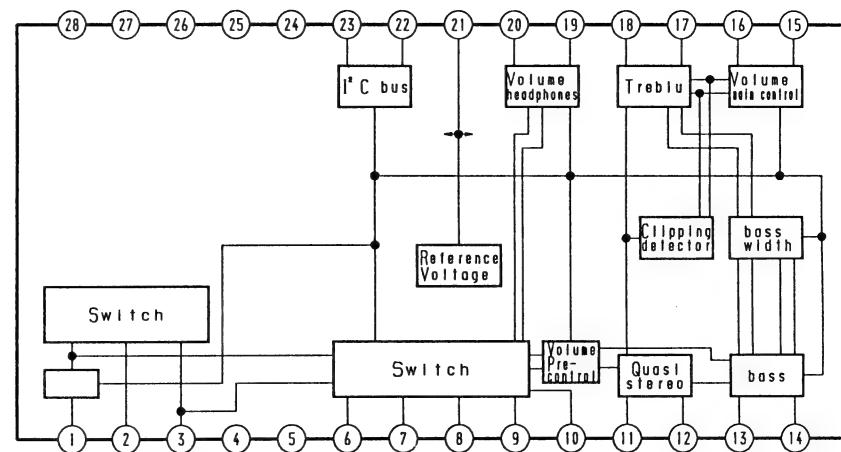


the voltage value shown by the
※ on the Schematic Diagram,
another list.

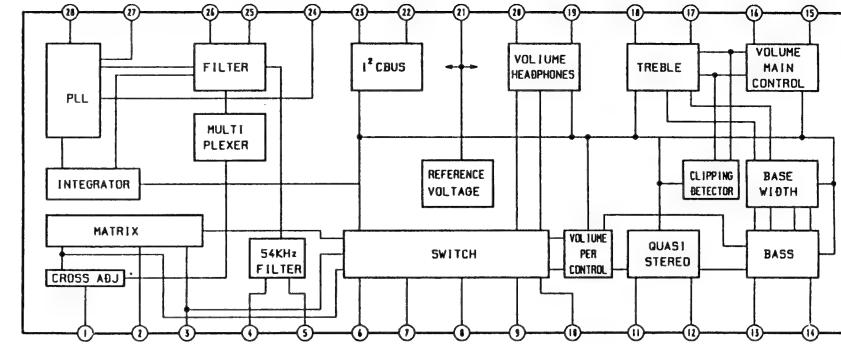
	PAL	SECAM	NTSC	NTSC
	3.58		4.43	
01 ⑧	5.0	4.6	5.0	5.0
01				
01 ⑯				

	KV-B2511D KV-B2511A KV-B2511K	KV-B2511B	KV-B2513E	KV-B2512U
6	4.7/50V	10/50V	4.7/50V	4.7/50V
1	-	0.001/50V	-	-
01	-	-	20P	20P
01 ⑯	TDA6612	TDA6612	TDA6612	TDA6622
01	IFH-389	IFH-389F	IFH-389	IFH-395
01	UV-916H	UV-916H	UV-916H	U-944C

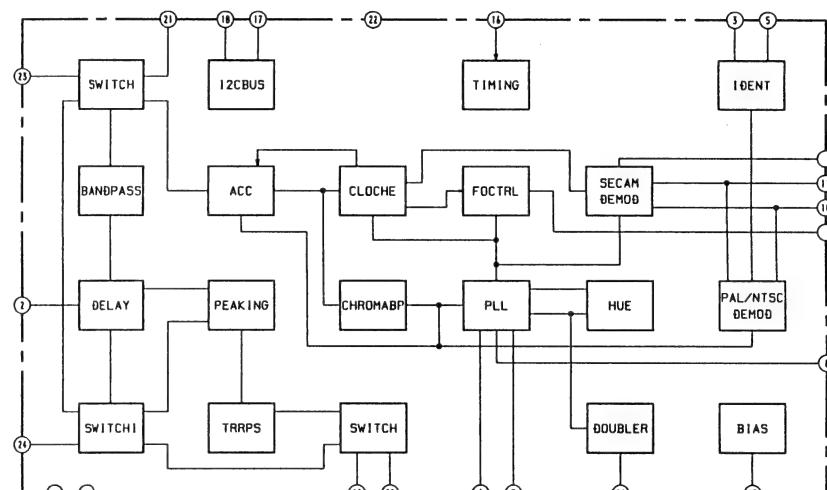
• A BOARD IC201 TDA6622 (KV-B2512U only)



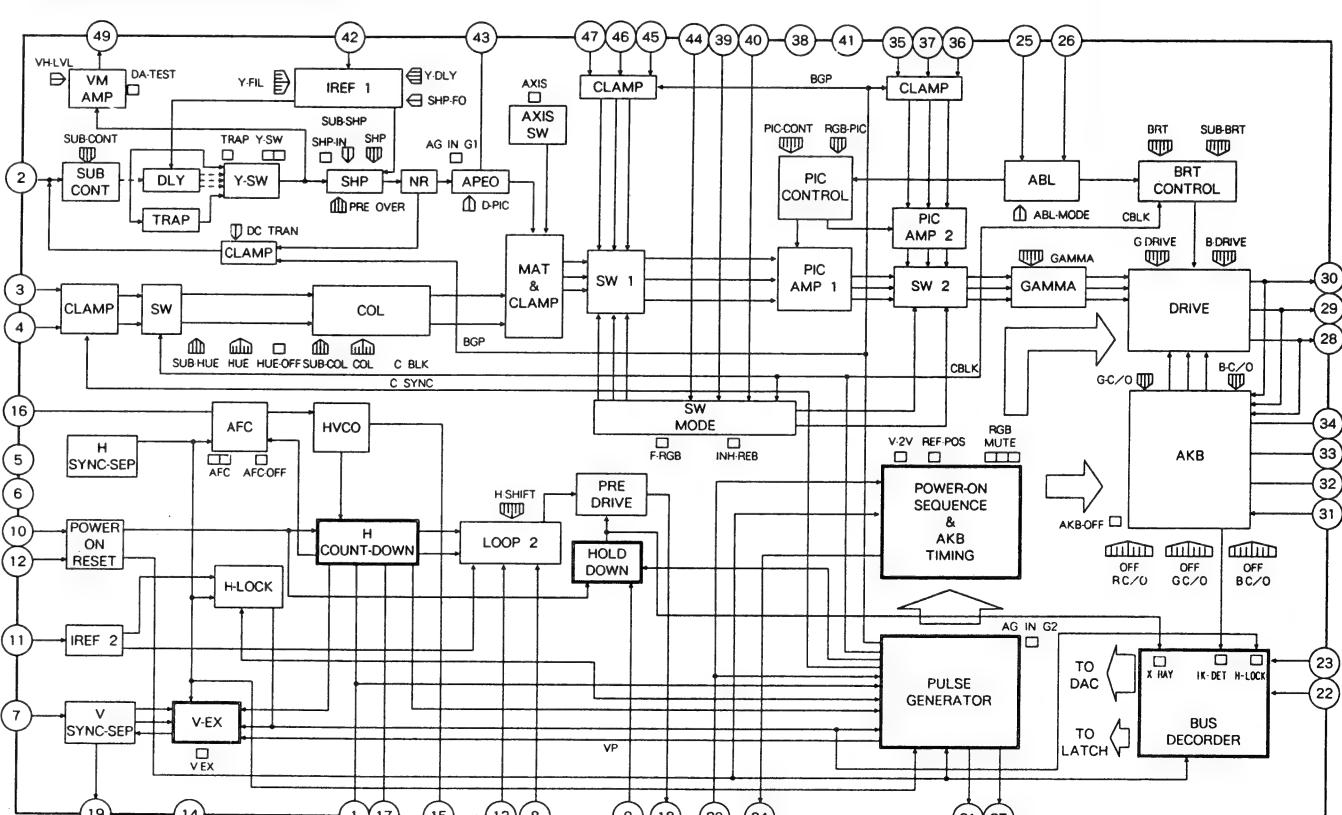
• A BOARD IC201 TDA6612



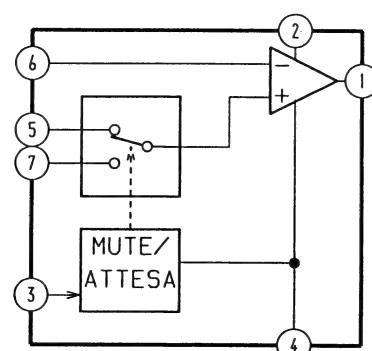
• A BOARD IC301 TDA9145



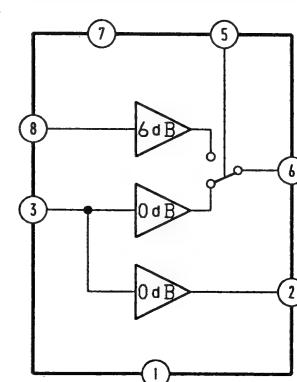
• A BOARD IC304 CXA1587S



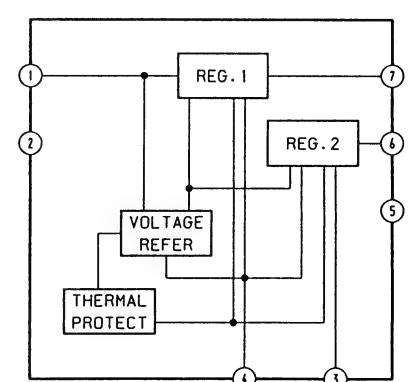
• A BOARD IC251 TDA2052



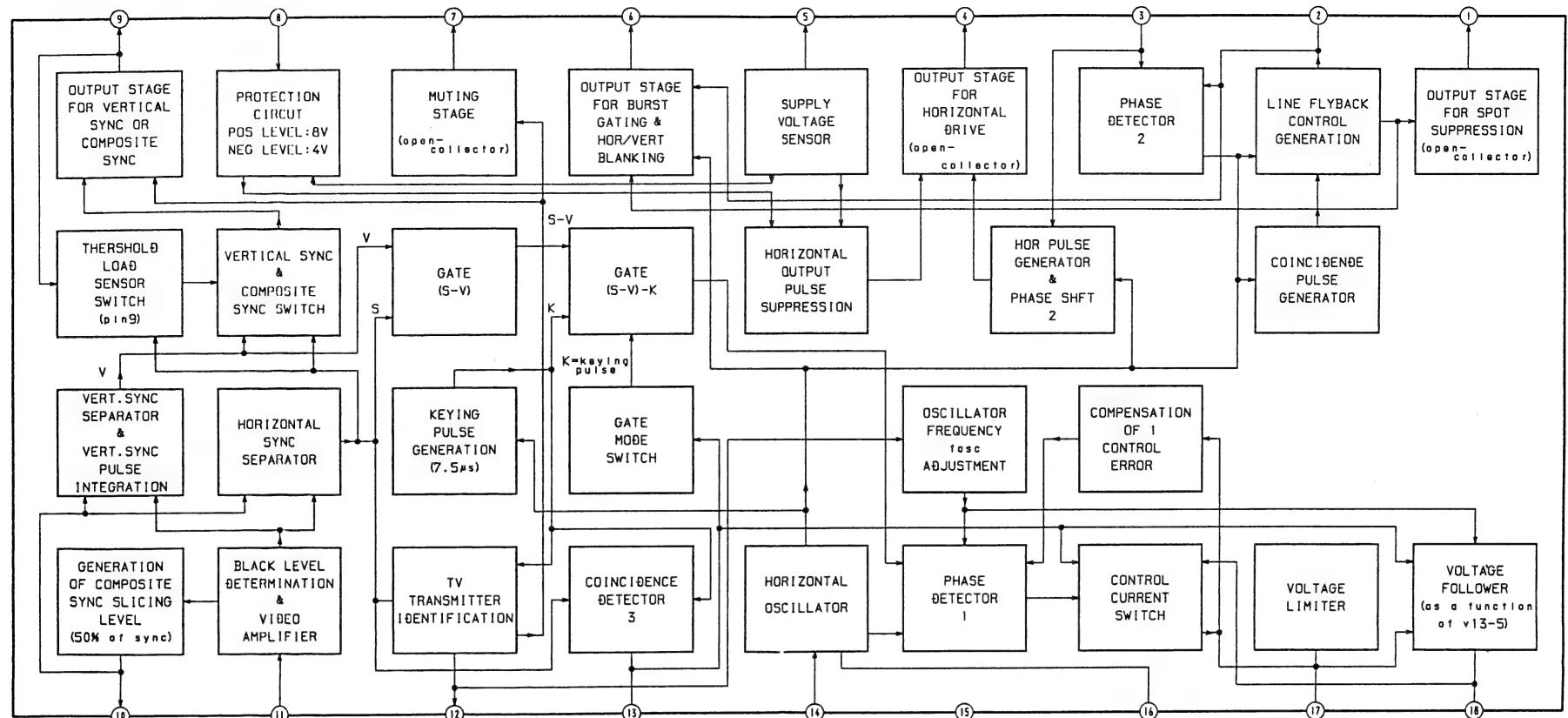
• A BOARD IC402 TEA2114



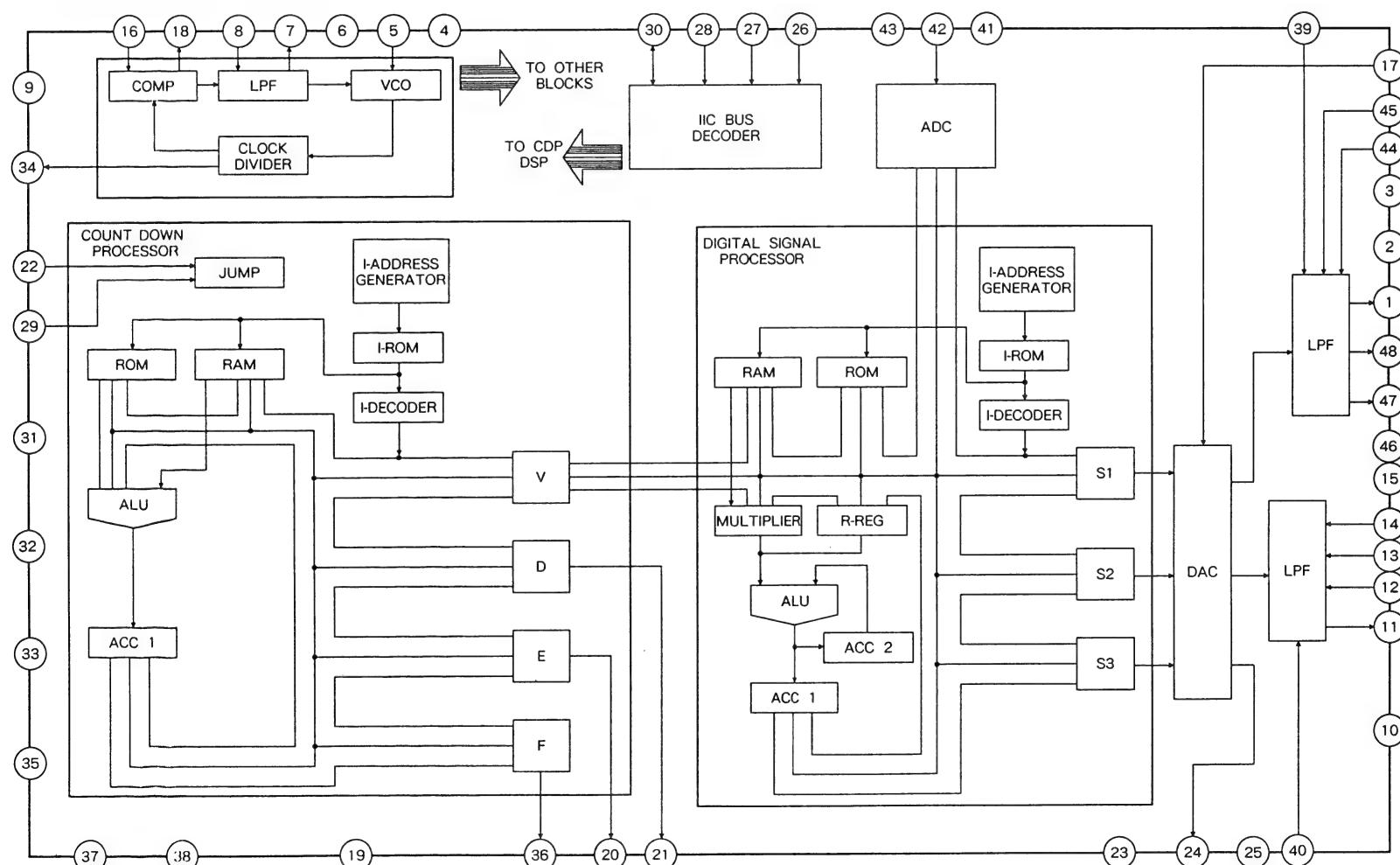
• A BOARD IC681 TDA8134

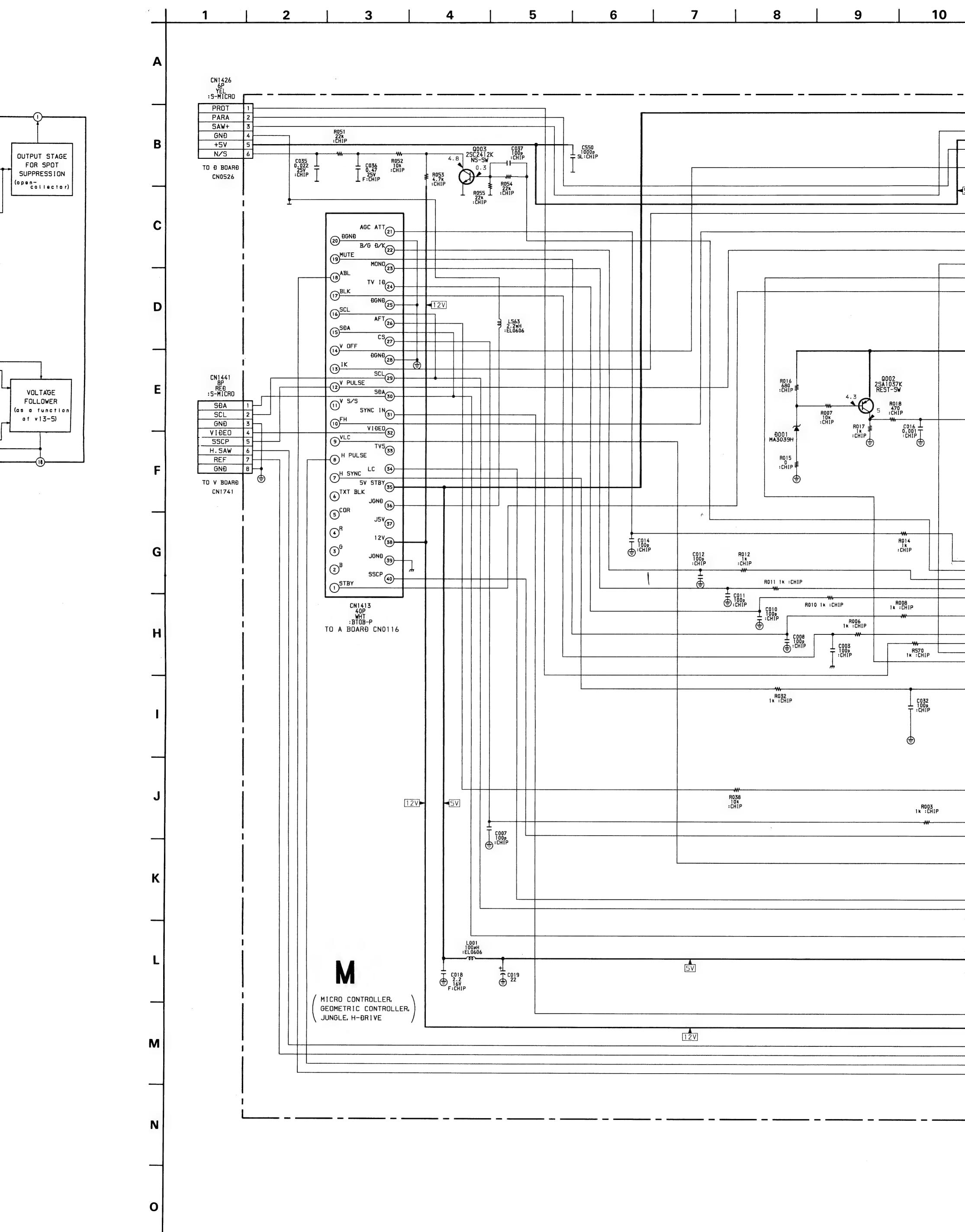


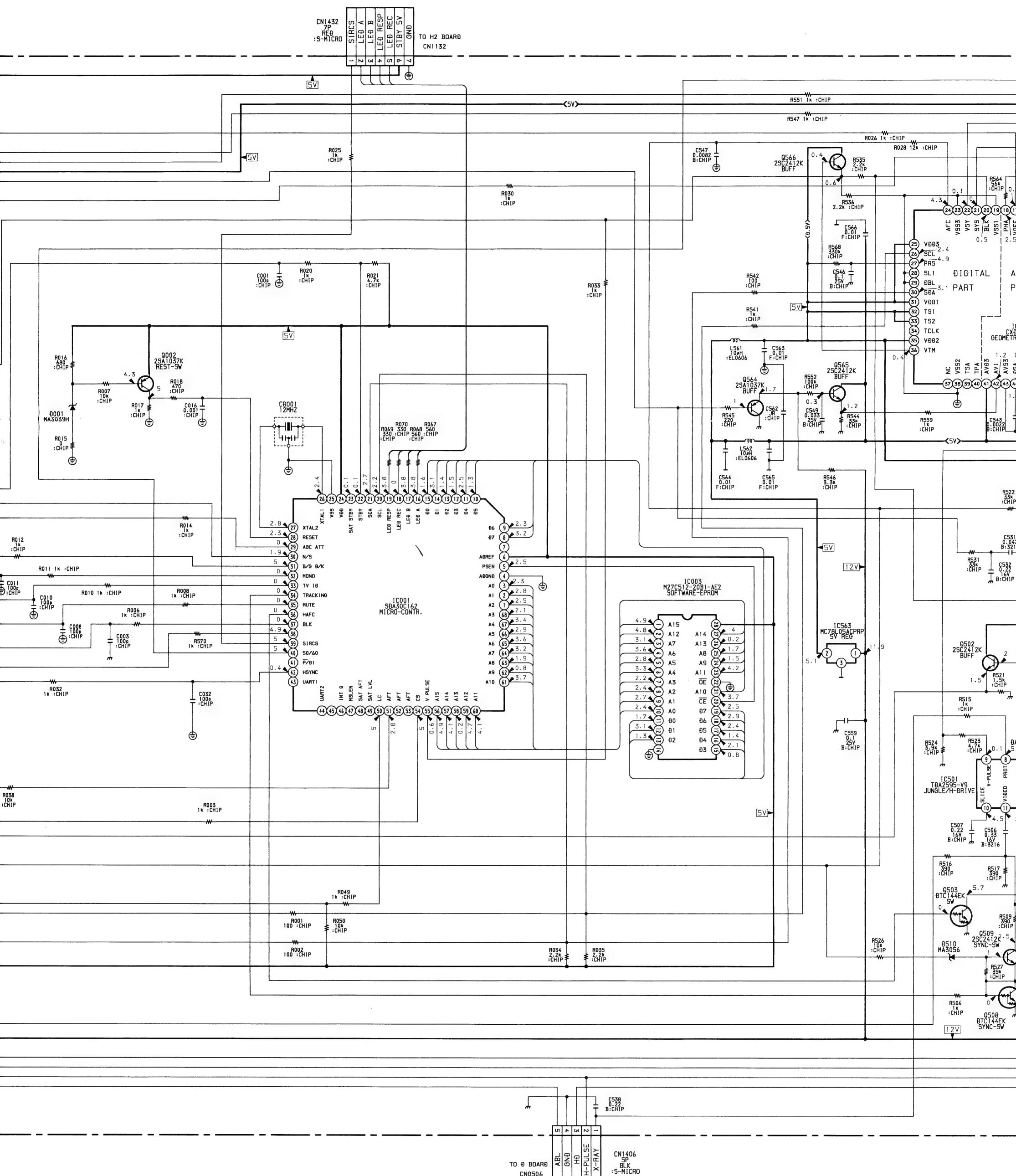
• M BOARD IC501 TDA2595-V9

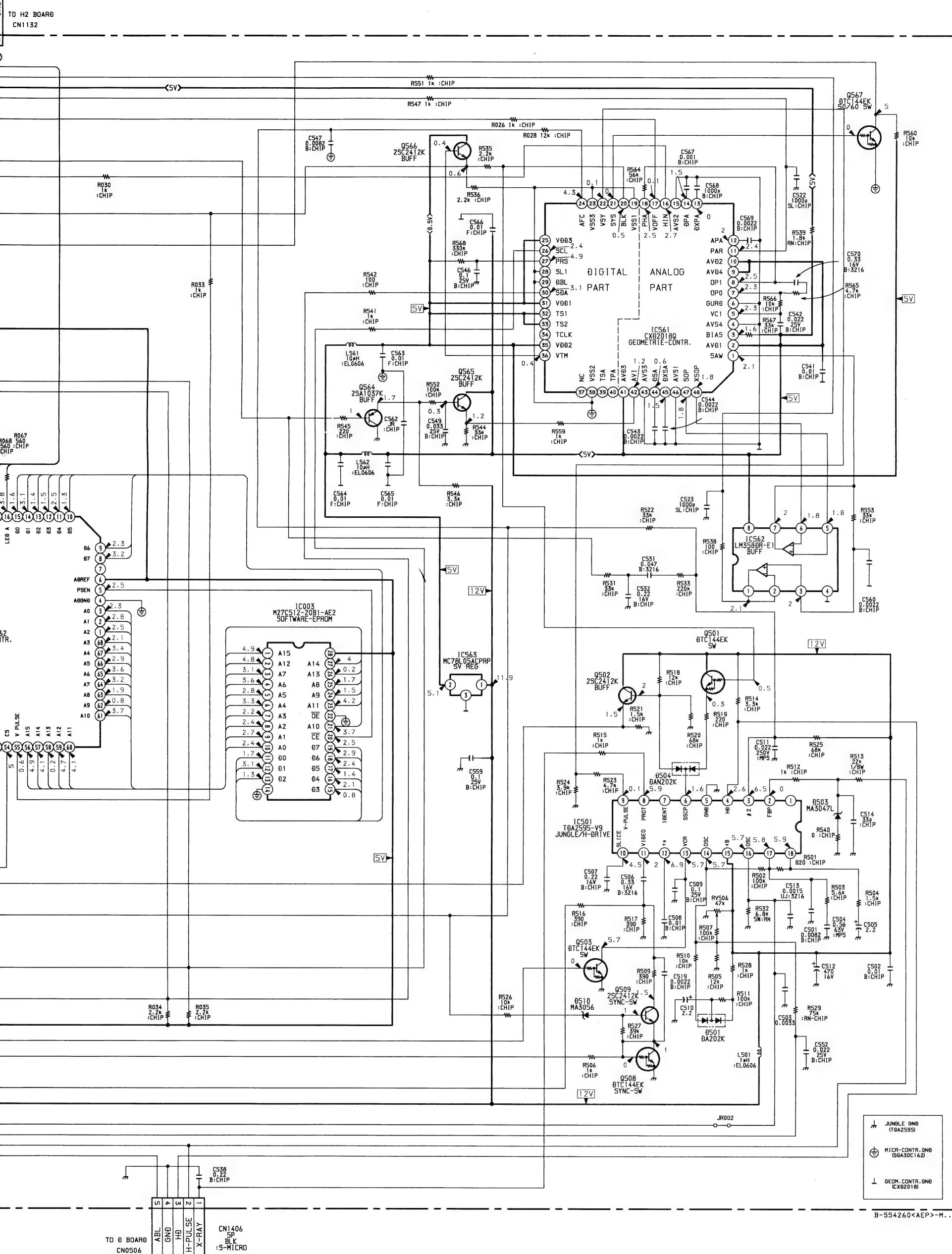


• M BOARD IC561 CXD2018Q



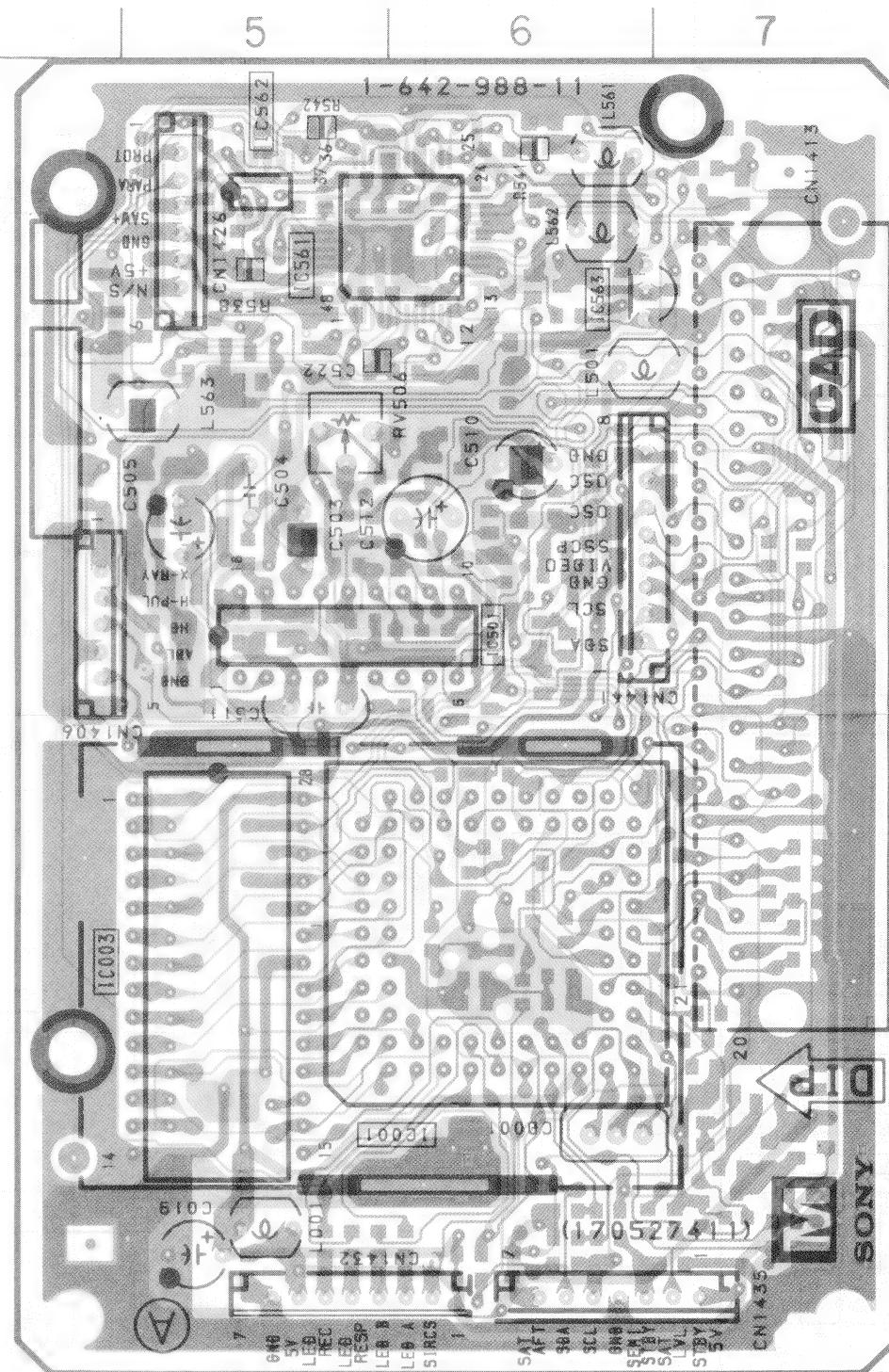
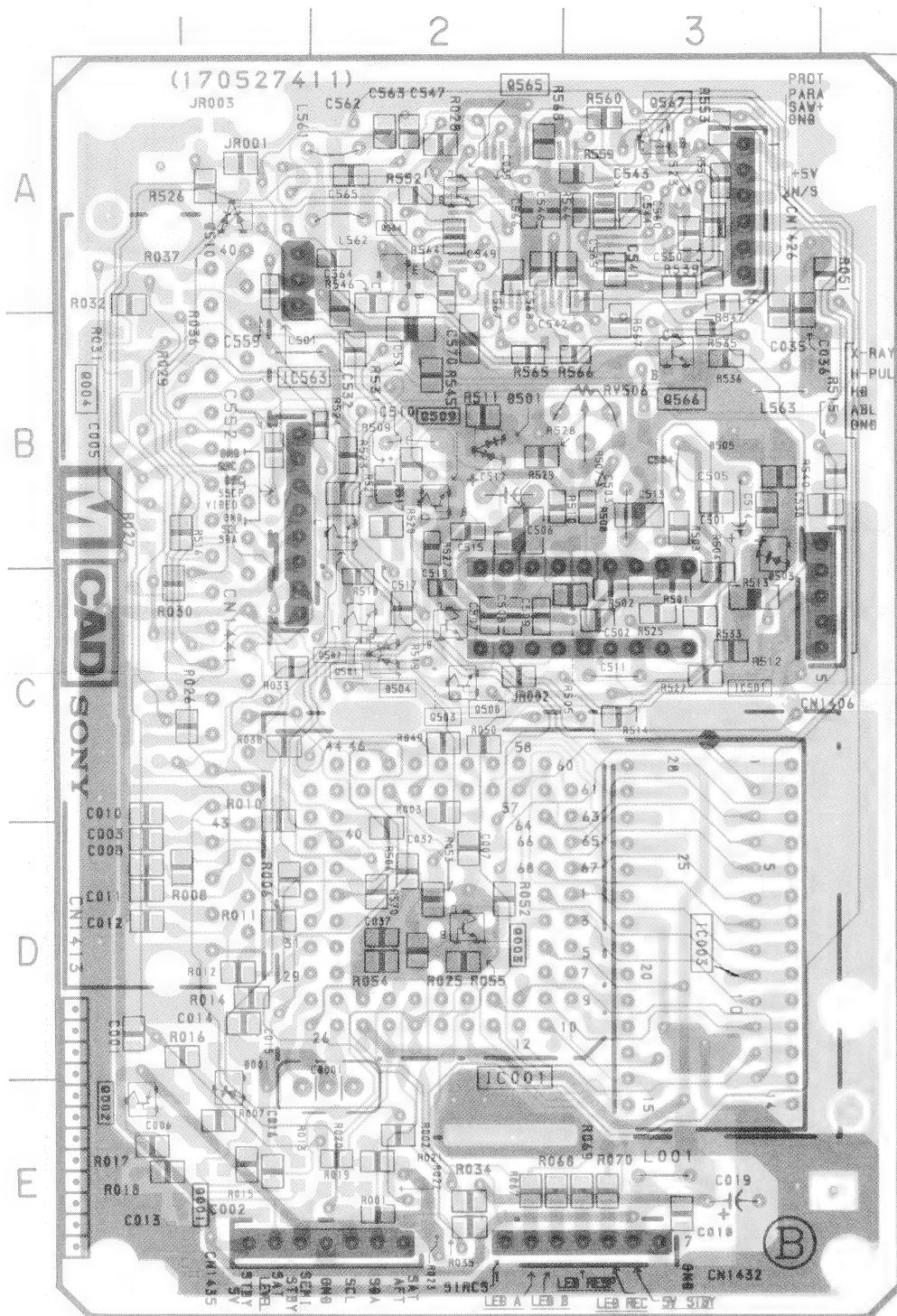






MMICRO CONTROLLER,
GEOMETRIE CONTROLLER
JUNGLE, H-DRIVE**D**H/V OUT, PIN OUT,
POWER SUPPLY

— M BOARD —

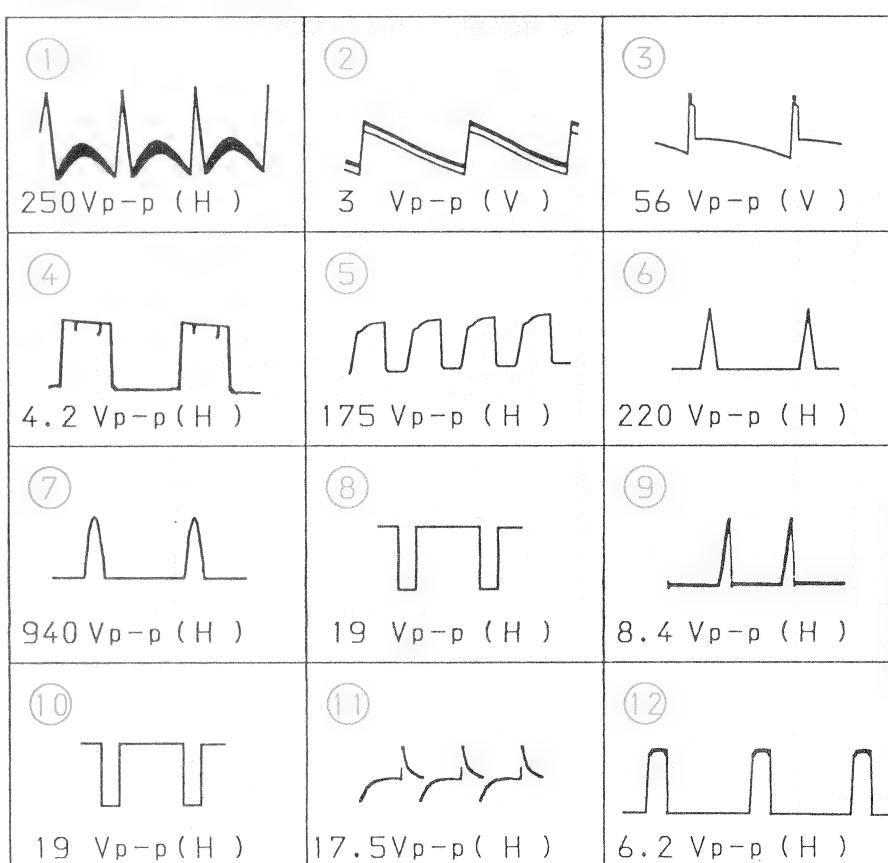


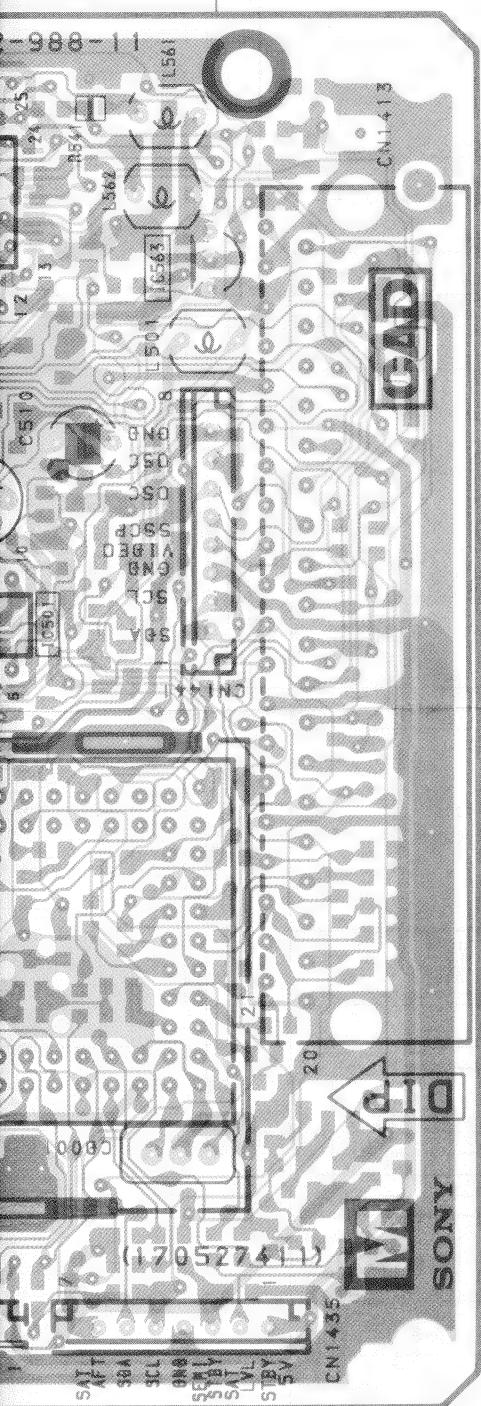
IC	DIODE
IC001	D - 2
IC003	D - 3
IC501	C - 3
IC561	A - 6
IC562	A - 5
IC563	A - 1
TRANSISTOR	VARIABLE RESISTOR
Q002	E - 2
Q003	D - 2
Q501	C - 2
Q502	B - 2
Q503	C - 2
Q508	C - 2
Q509	B - 2
Q564	A - 2
Q565	A - 2
Q566	B - 3
Q567	A - 3

Note :

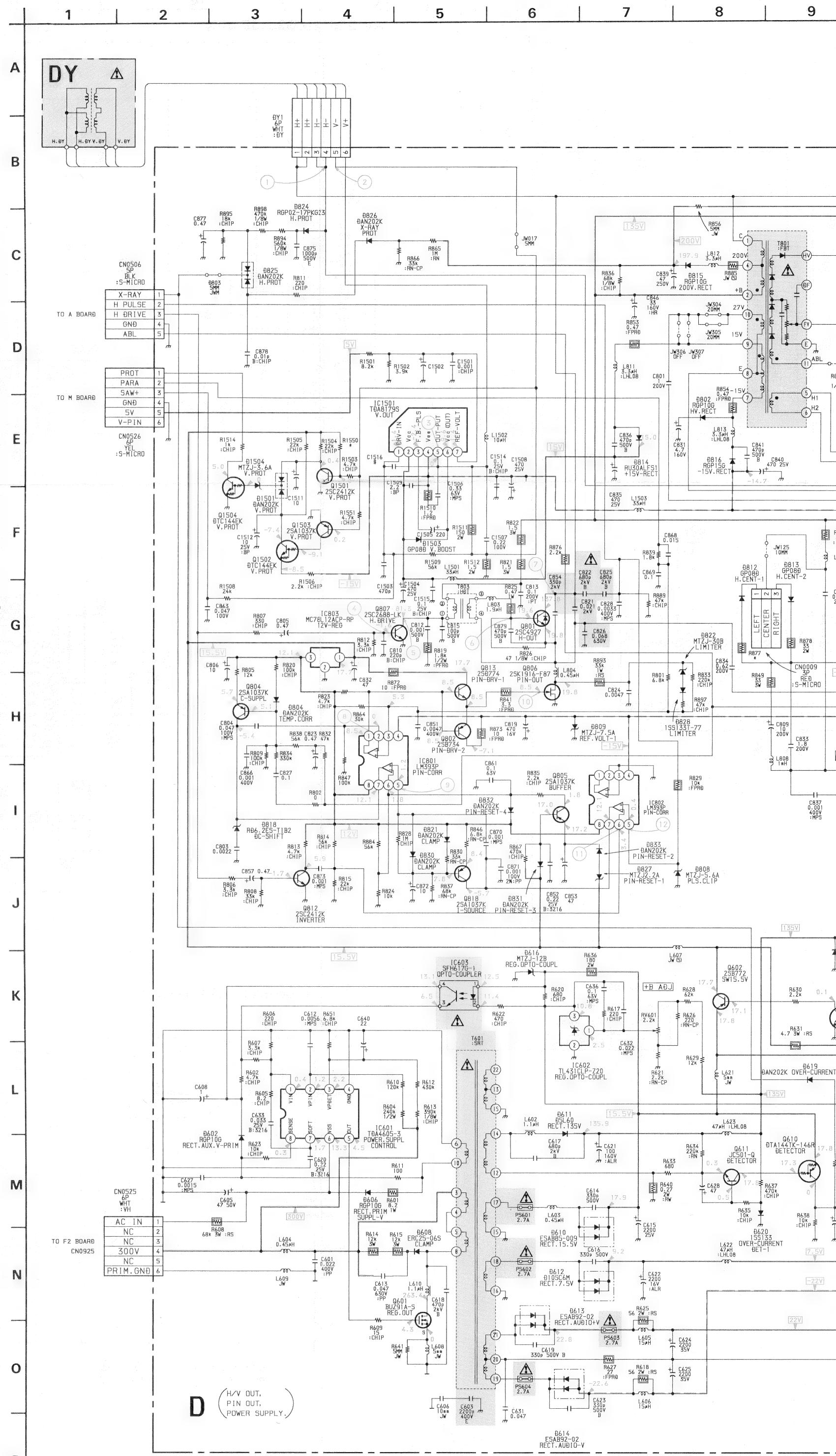
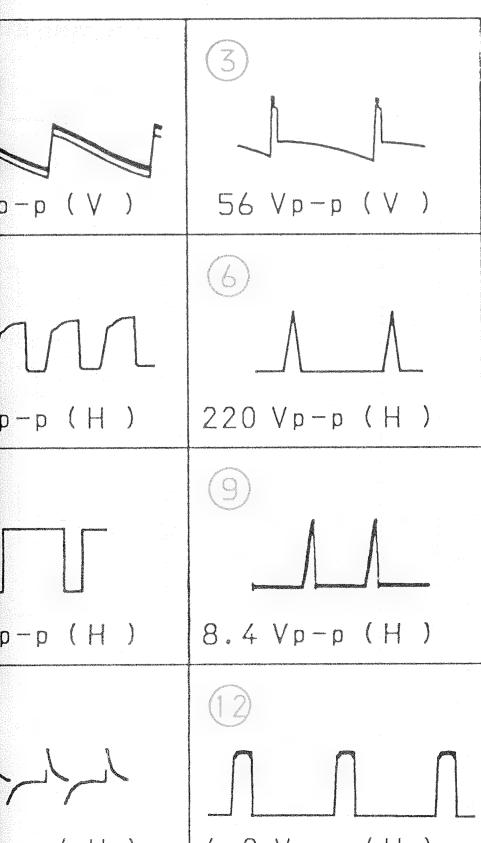
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

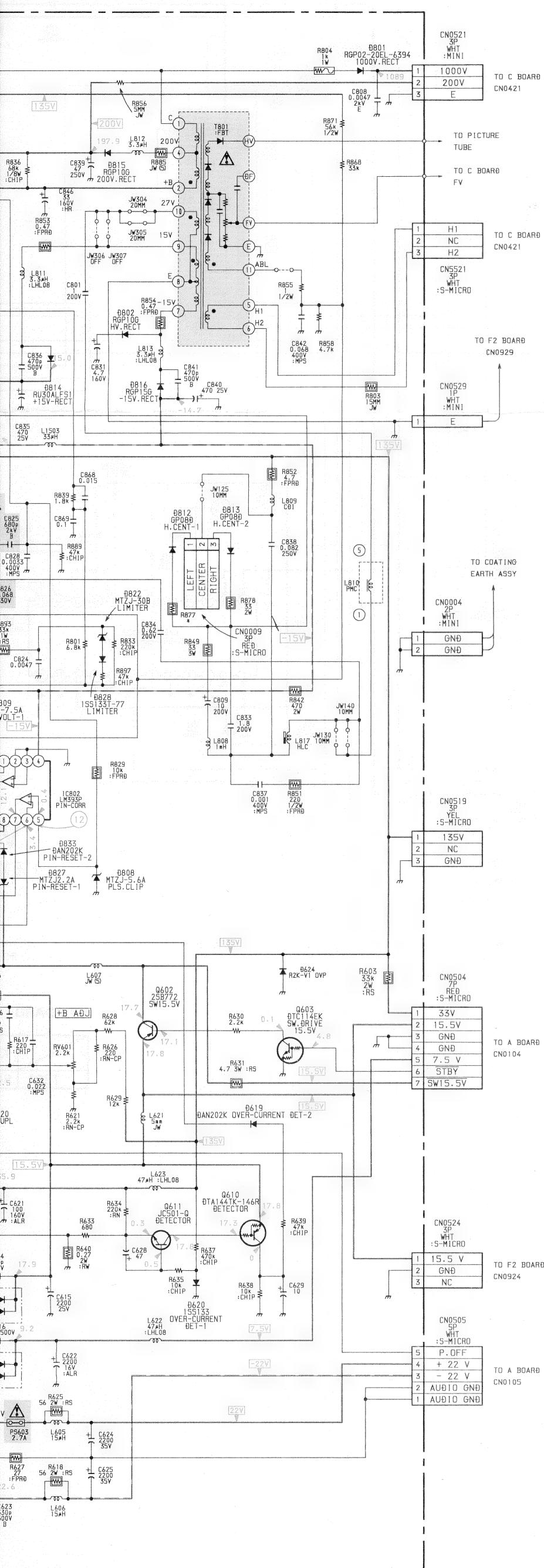
• WAVEFORMS D BOARD



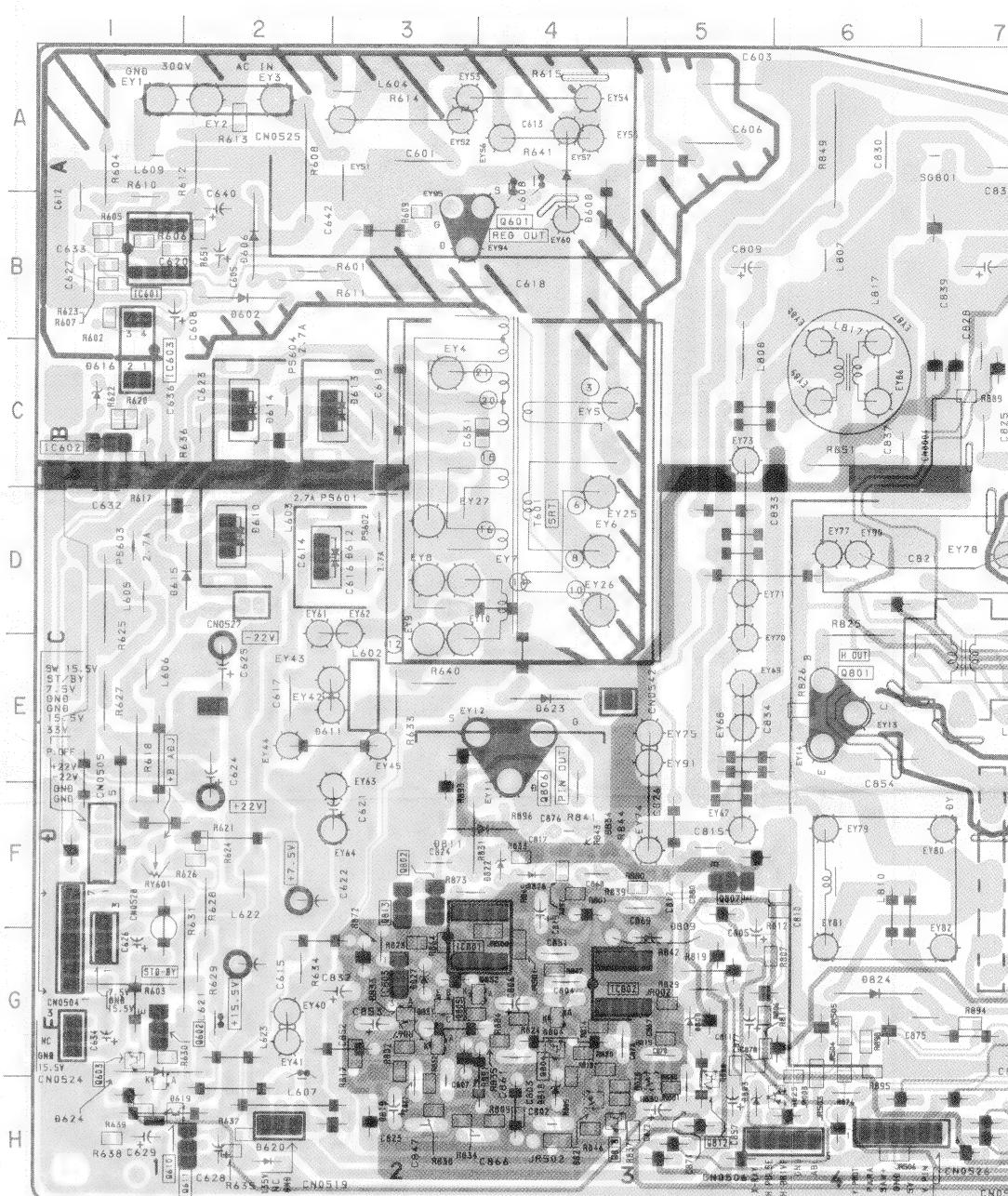


- : Pattern from the side which enables seeing.
- : Pattern of the rear side.





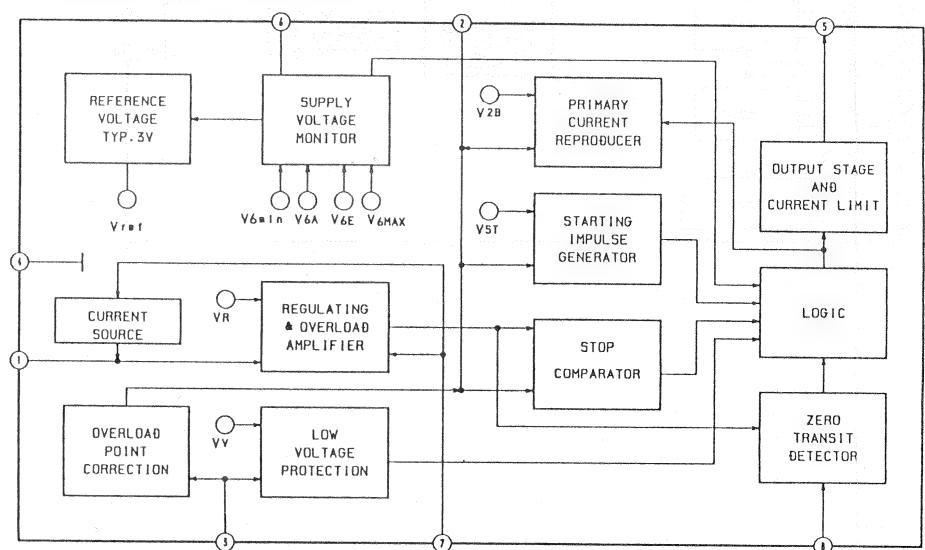
- D BOARD -



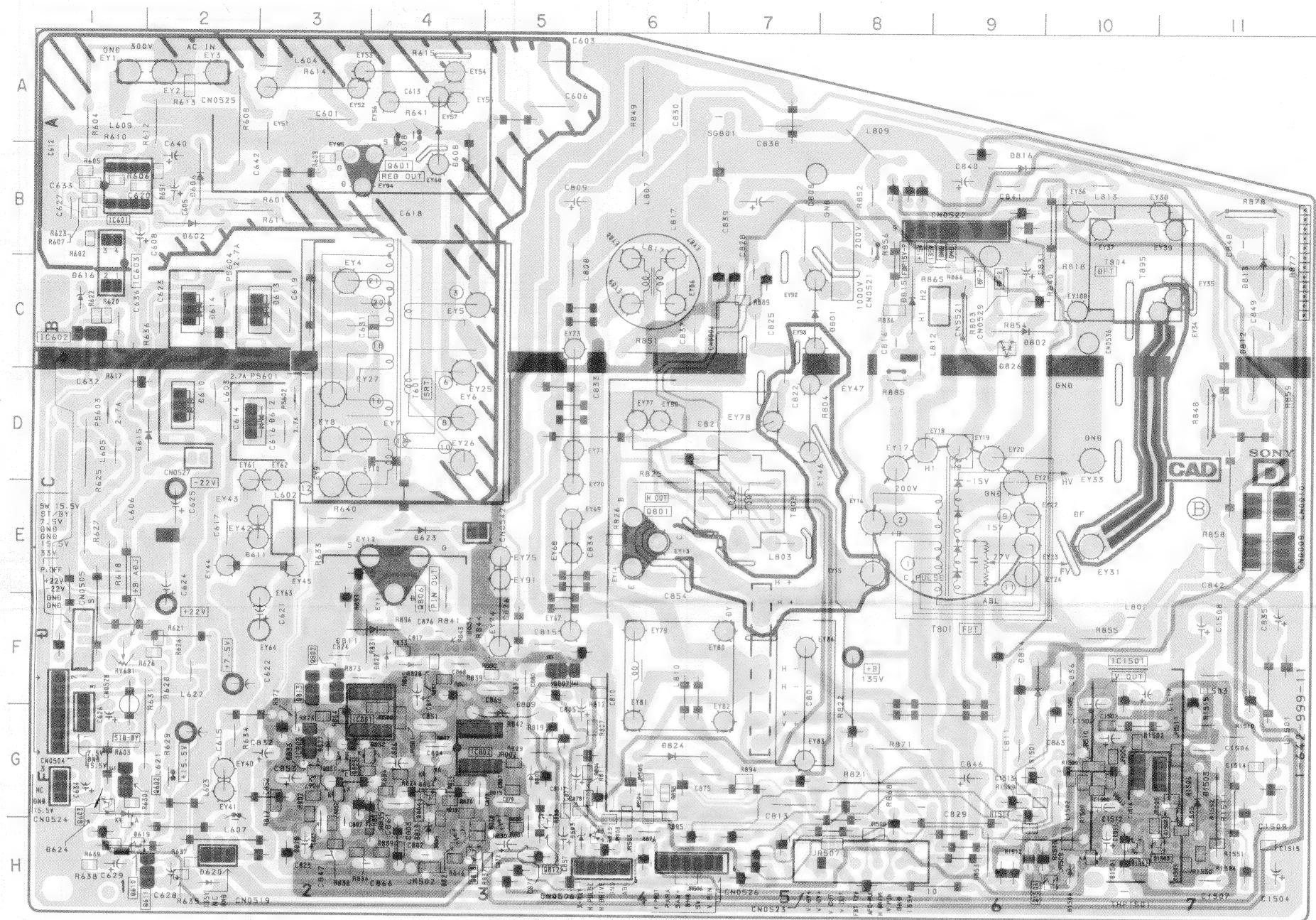
Note :

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

• D BOARD IC601 TDA4605-3



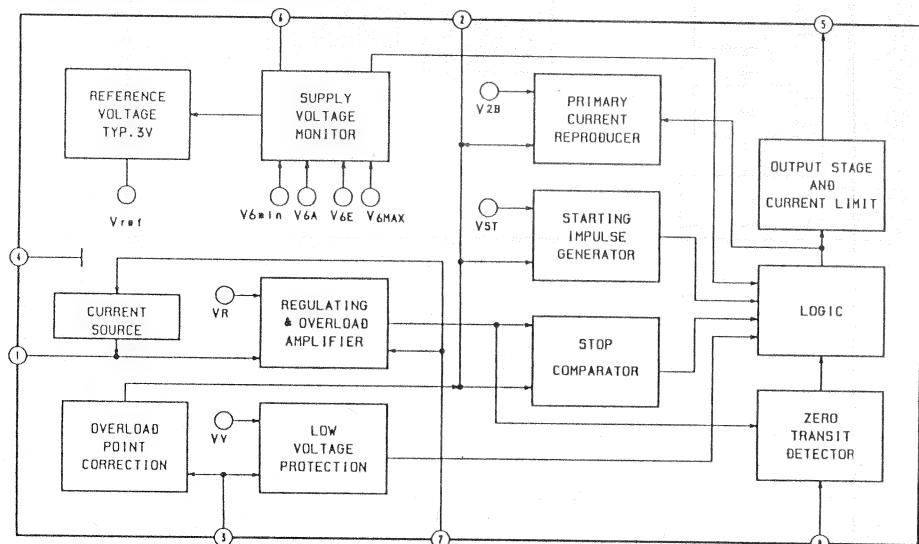
- D BOARD -



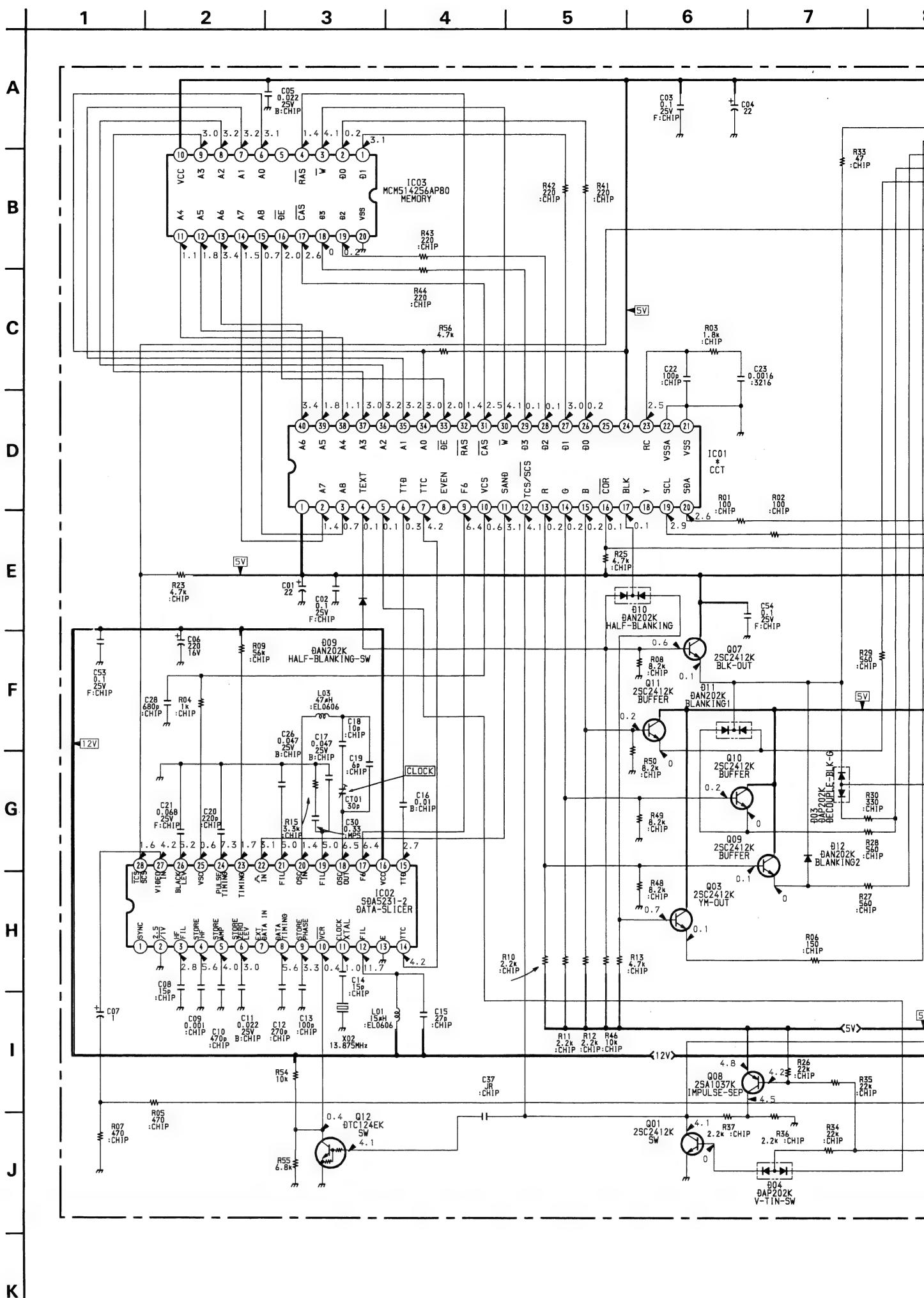
Note :

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

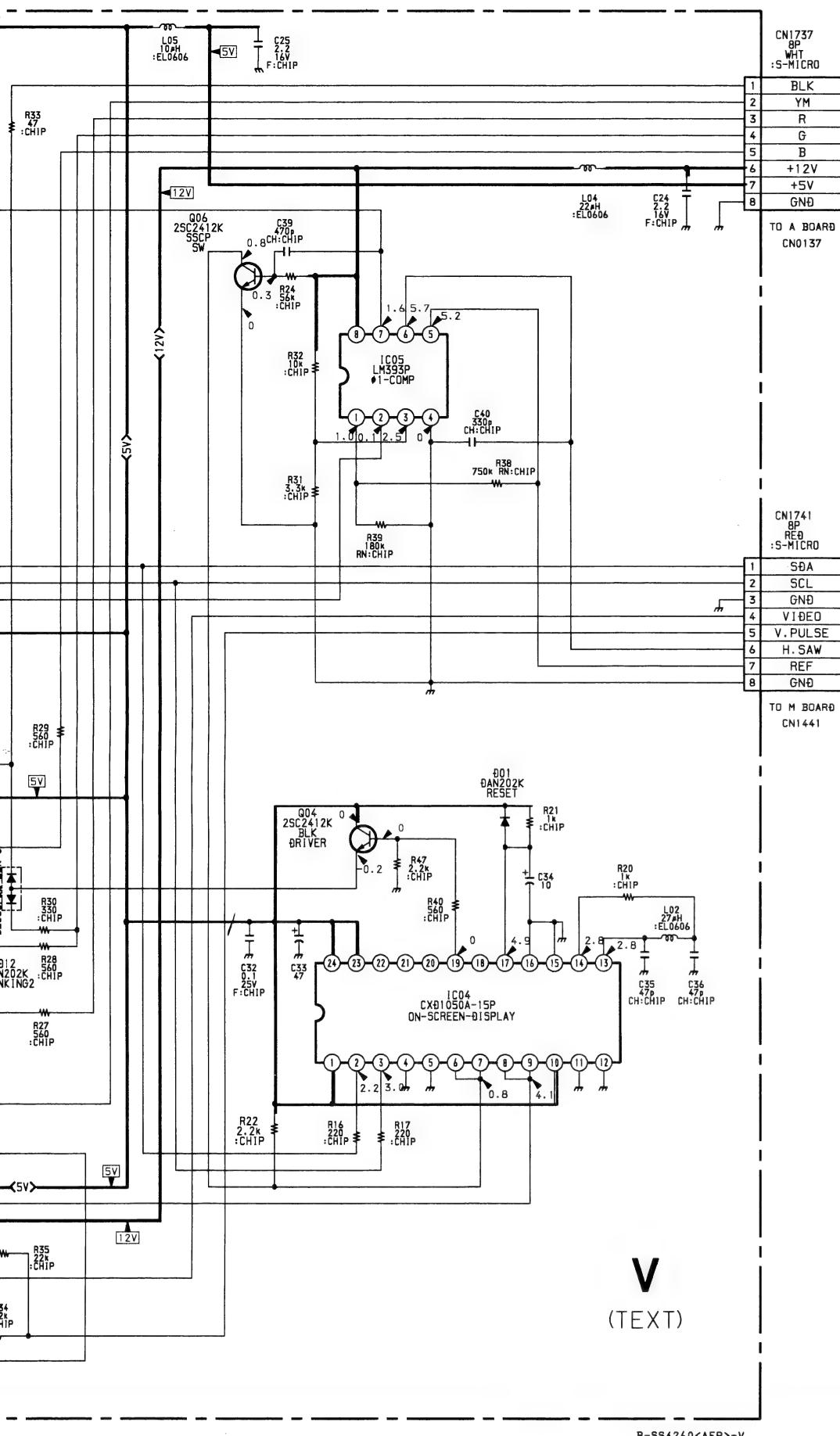
• D BOARD IC601 TDA4605-3



IC	DIODE	
IC601	B - 1	D828 F - 4
IC602	C - 1	D830 H - 5
IC603	C - 1	D831 G - 3
IC801	G - 3	D832 G - 4
IC802	G - 4	D833 G - 3
IC803	G - 3	D1501 H - 10
IC1501	G - 10	D1503 G - 11
		D1504 H - 10
TRANSISTOR		VARIABLE RESISTOR
Q601	B - 3	RV601 F - 1
Q602	G - 1	
Q603	G - 1	
Q610	H - 1	
Q611	H - 2	
Q801	E - 6	
Q802	F - 3	
Q804	G - 4	
Q805	G - 3	
Q806	E - 4	
Q807	F - 5	
Q812	H - 5	
Q813	F - 3	
Q818	H - 4	
Q1501	H - 10	
Q1502	G - 11	
Q1503	H - 11	
Q1504	H - 10	



KV-B2512U/B2513E only

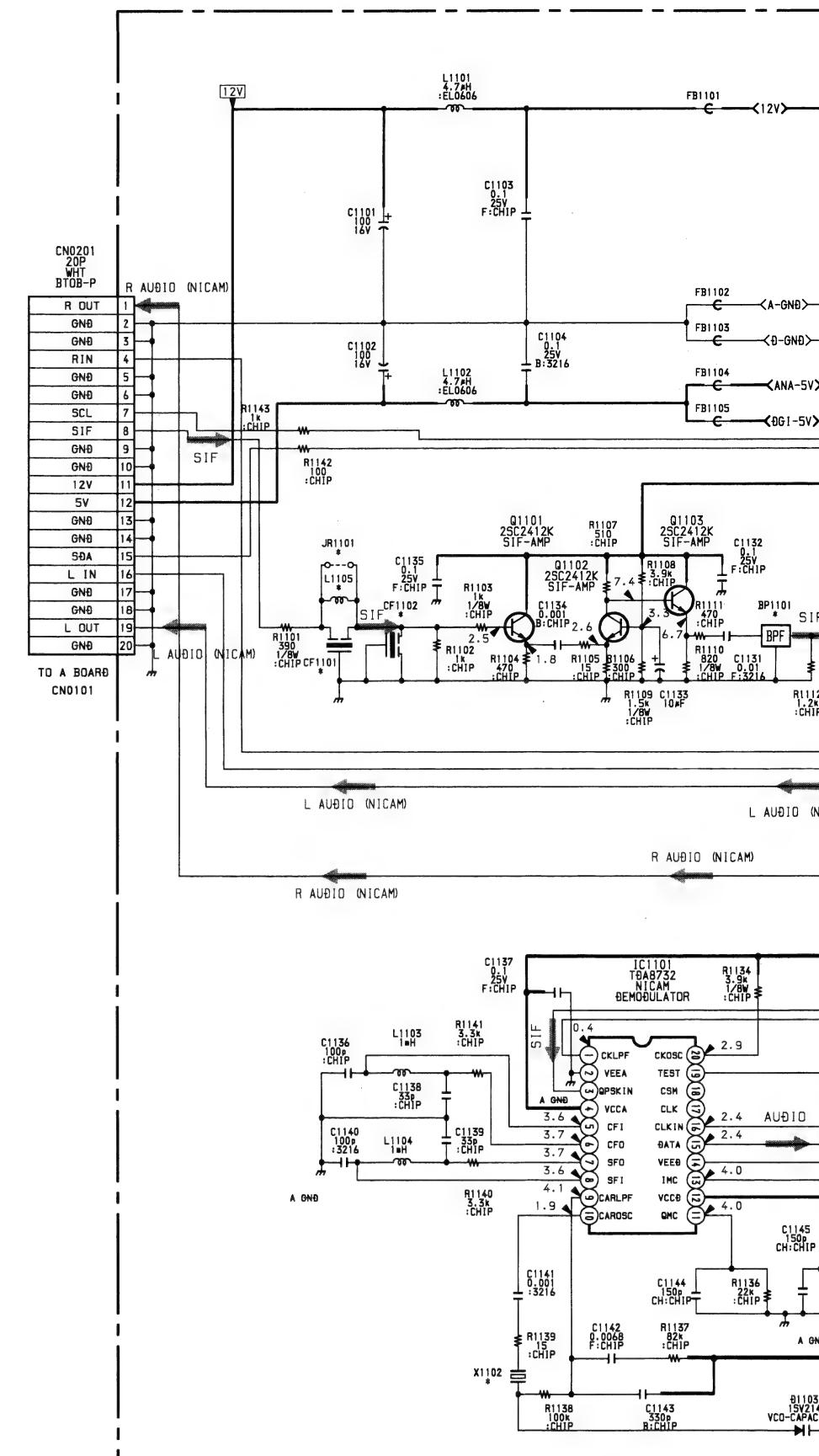


V
(TEXT)

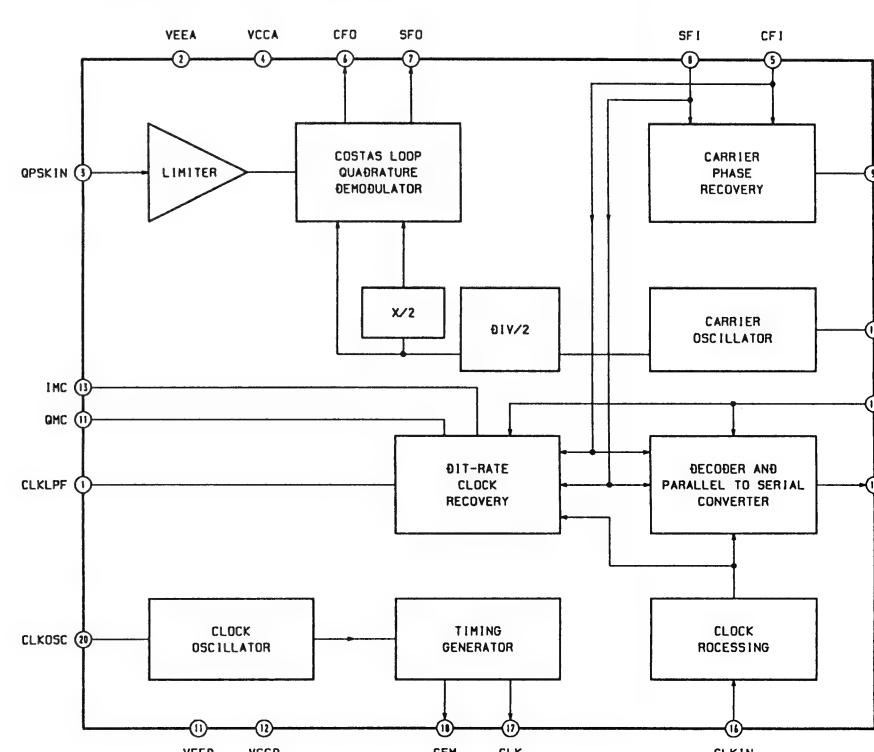
B-SS4260<AE>-V..

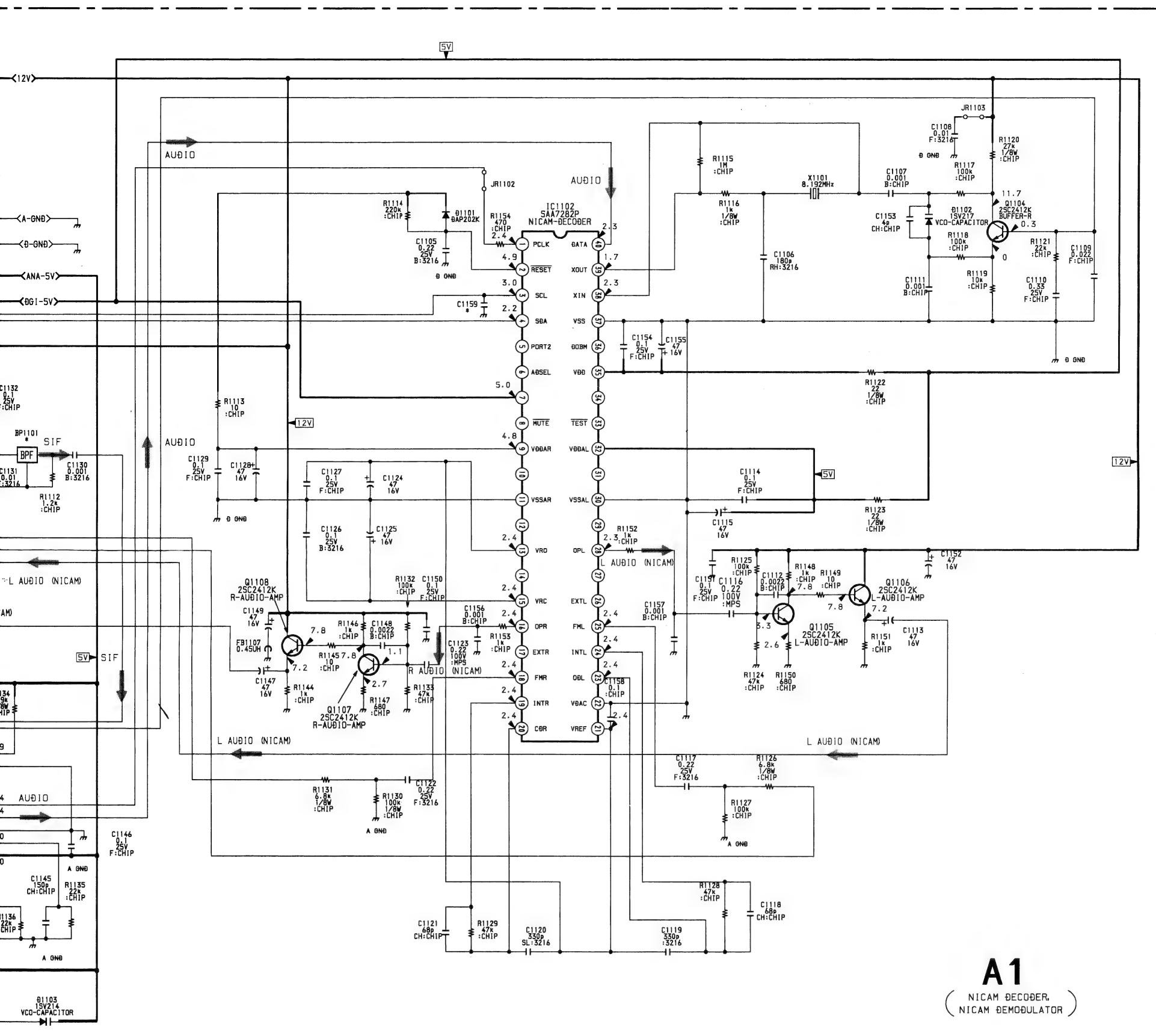
• V BOARD

	KV-B2911K	OTHERS
IC01	S0A5248C2	S0A5248C1



• A1 BOARD IC1101 TDA8732

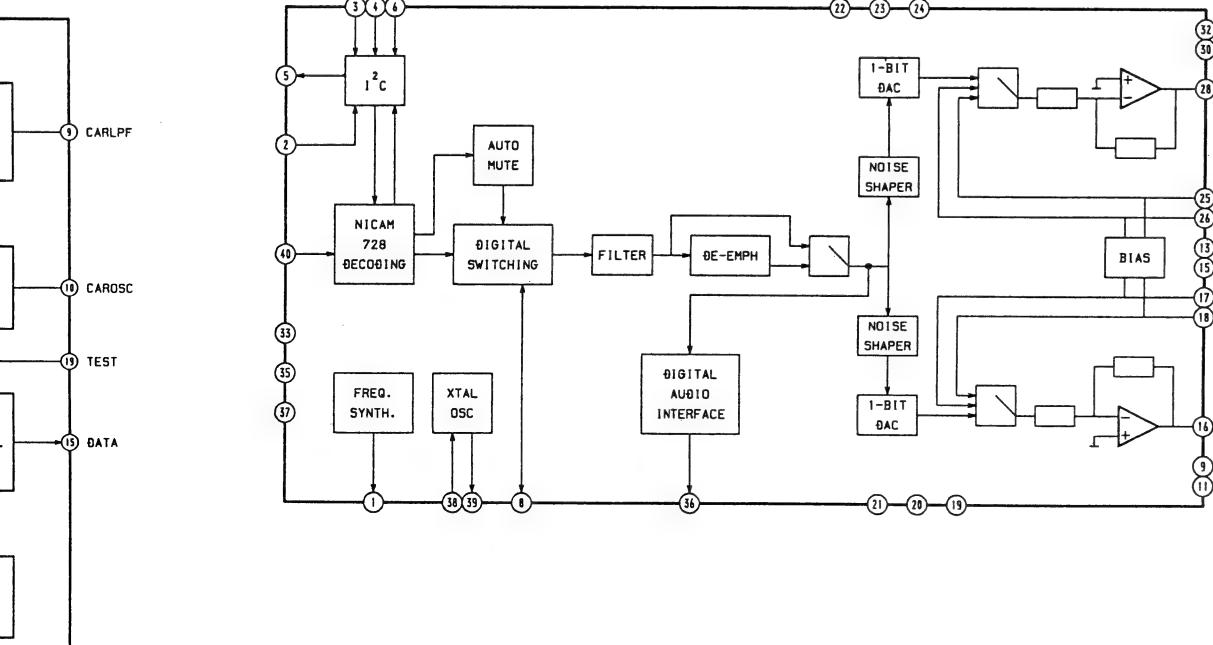




B-554260<AEPA>-A1.

• A1 BOARD (KV-B2512U/B2513E only)

• A1 BOARD IC1102 SAA7282P



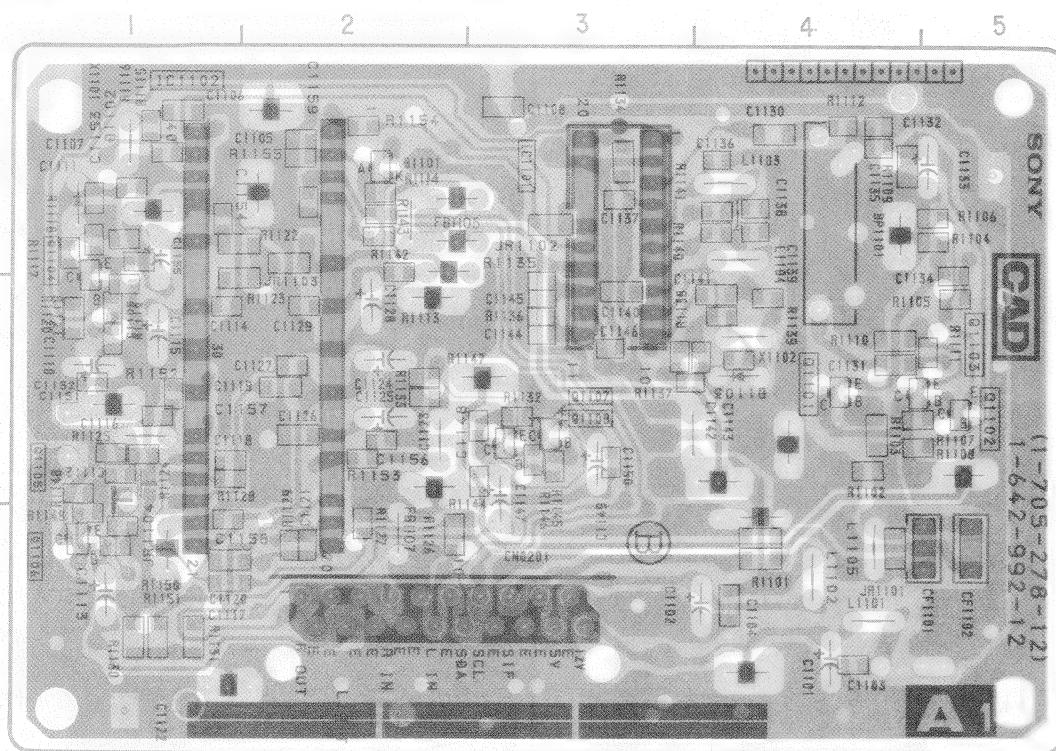
	KV-B2513E	KV-B2512U
BP1101	5.850MHz	6.552MHz
C1159	—	47P : CHIP
CF1101	—	6.0MHz
CF1102	5.5MHz	—
JR1101	0 : CHIP	—
L1105	—	15 μ H
X1102	11.700MHz	13.104MHz

A1 [NICAM DECODER,
NICAM DEMODULATOR] **V**

V [TEXT] C

C [R, G, B OUT]

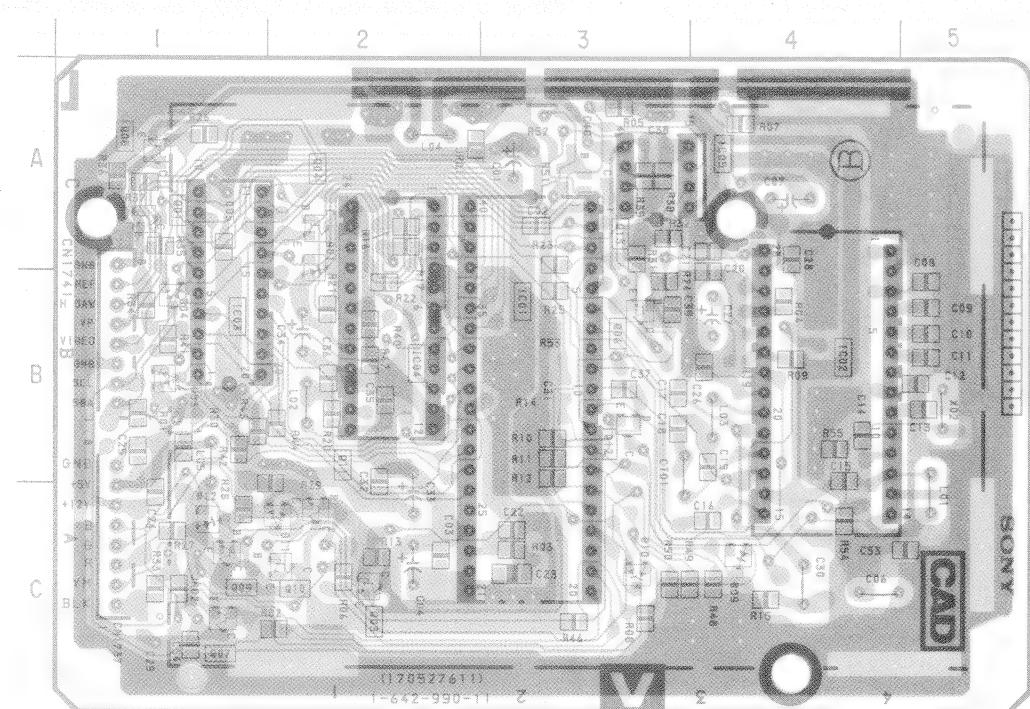
– A1 BOARD – (KV-B2512U/B2513E only)



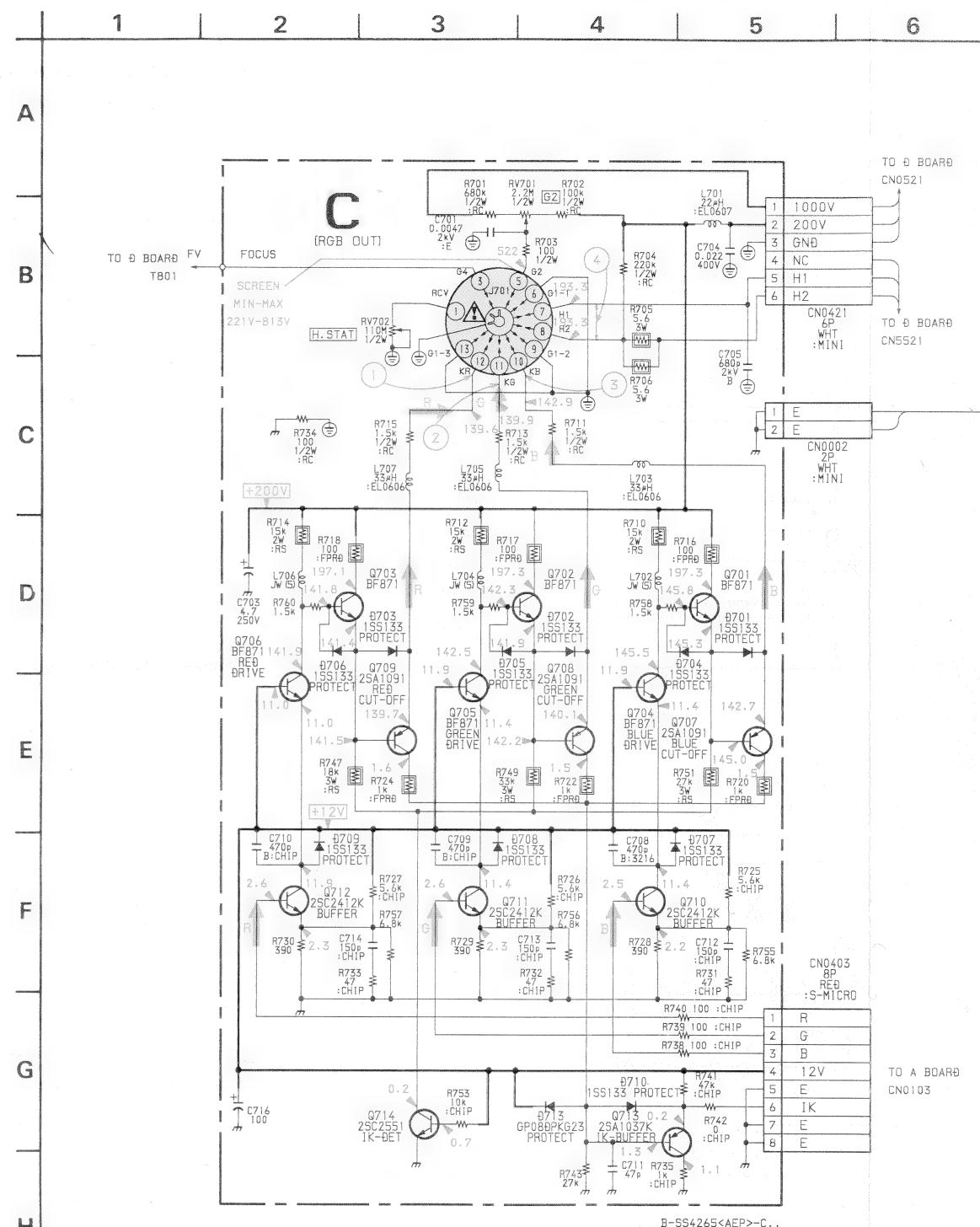
Note:

- : Pattern from the side which enables seeing.
 - : Pattern of the rear side.

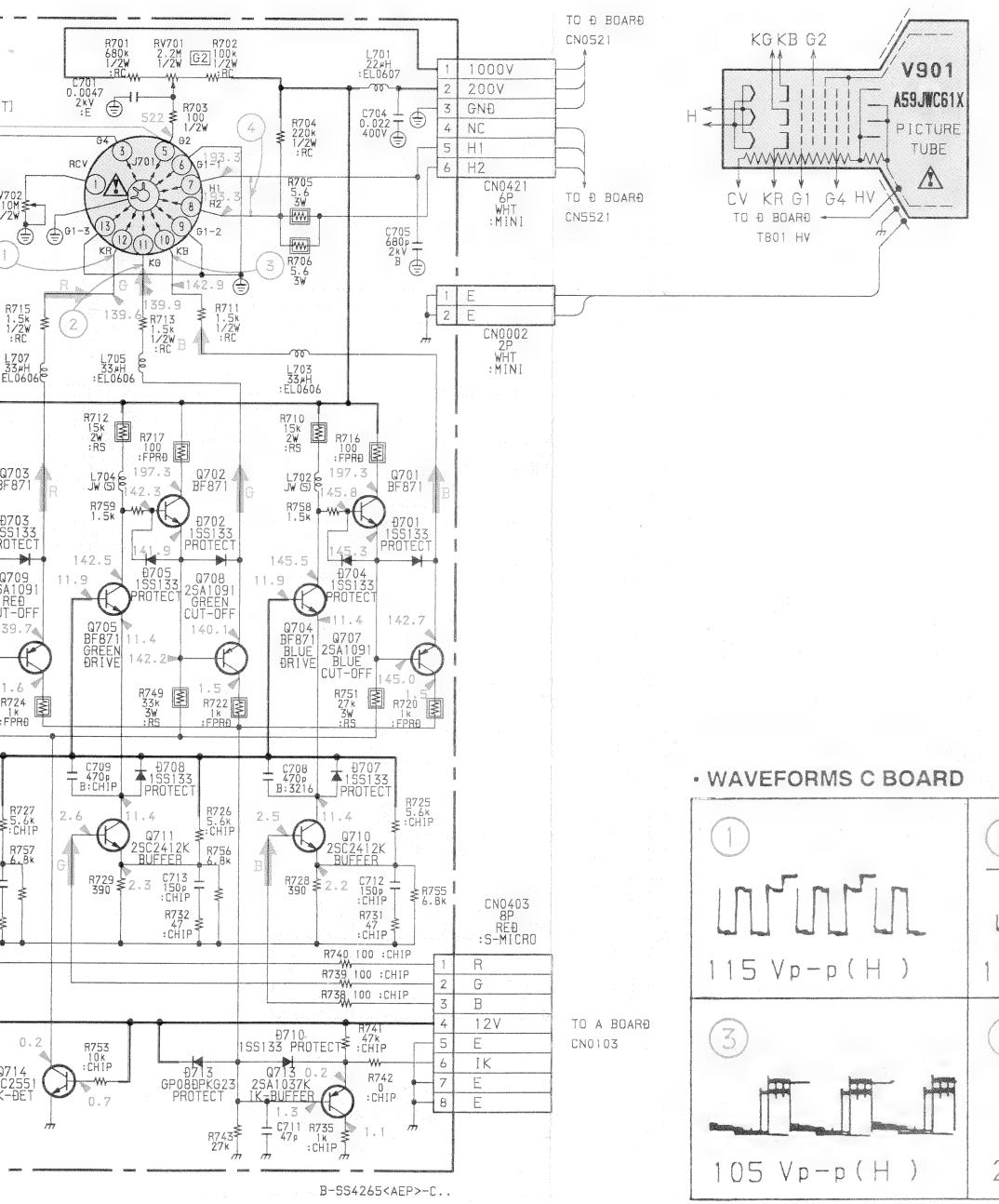
- V BOARD -



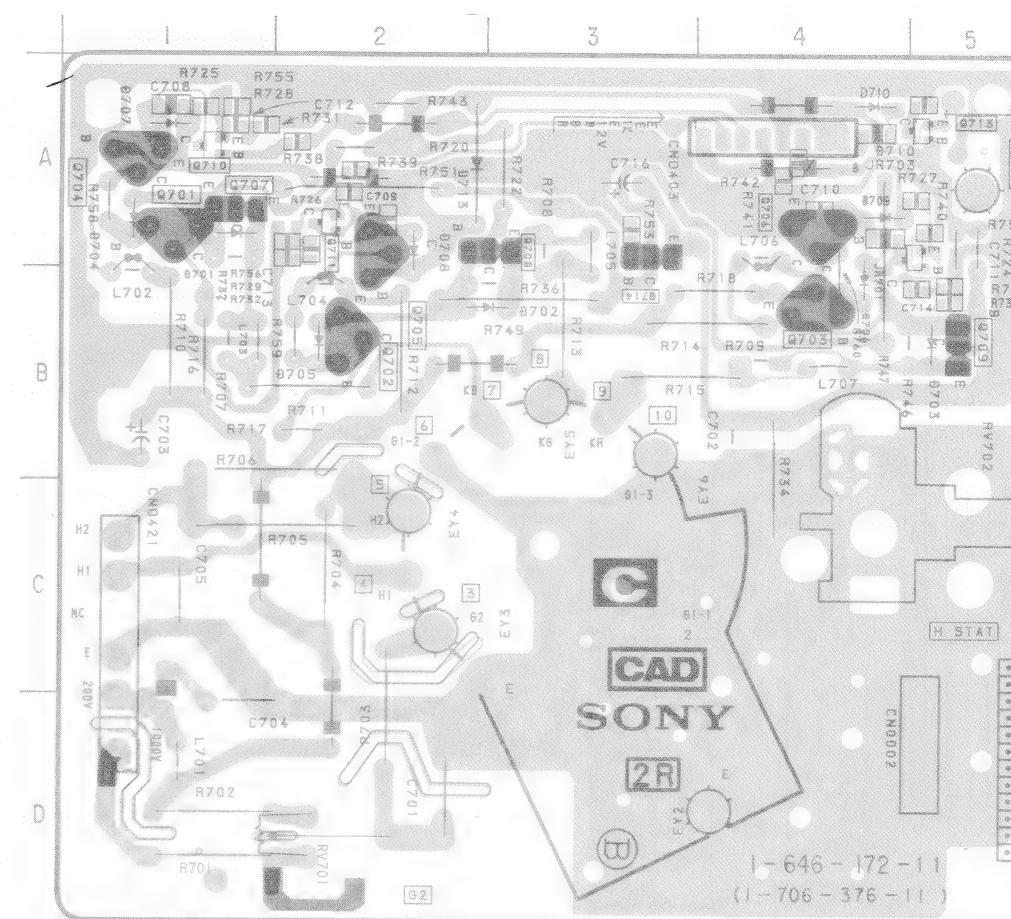
IC		Q08	A - 1
IC01		Q09	C - 1
IC02		Q010	C - 2
IC03		Q011	C - 2
IC04		Q012	C - 3
IC05		DIODE	
TRANSISTOR		D01	B - 2
Q01		D03	B - 1
Q03		D04	B - 1
Q04		D09	C - 4
Q06		D010	C - 3
Q07		D011	C - 2
Q08		D012	C - 1



3 | 4 | 5 | 6 | 7 | 8 | 9 | 10



- C BOARD -



TRANSISTOR

Q701	A - 1
Q702	B - 2
Q703	B - 4
Q704	A - 1
Q705	B - 2
Q706	A - 4
Q707	A - 1
Q708	A - 3
Q709	B - 5
Q710	A - 1
Q711	A - 2
Q712	A - 5
Q713	A - 5
Q714	A - 3

DIODE

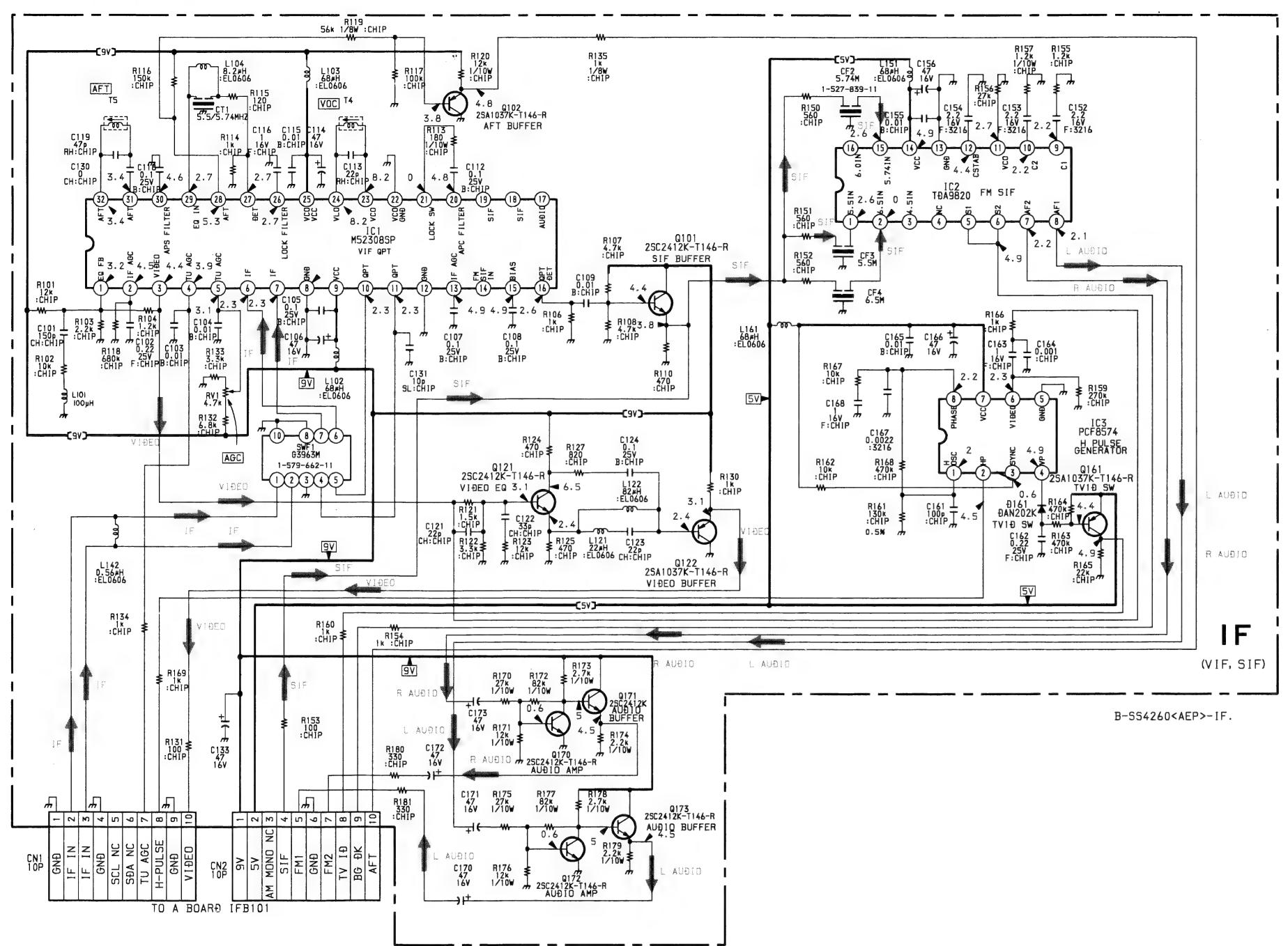
D701	A - 1
D702	B - 3
D703	B - 5
D704	A - 1
D705	B - 2
D706	B - 4
D707	A - 1
D708	A - 2
D709	A - 4
D710	A - 4
D713	A - 2

VARIABLE RESISTOR

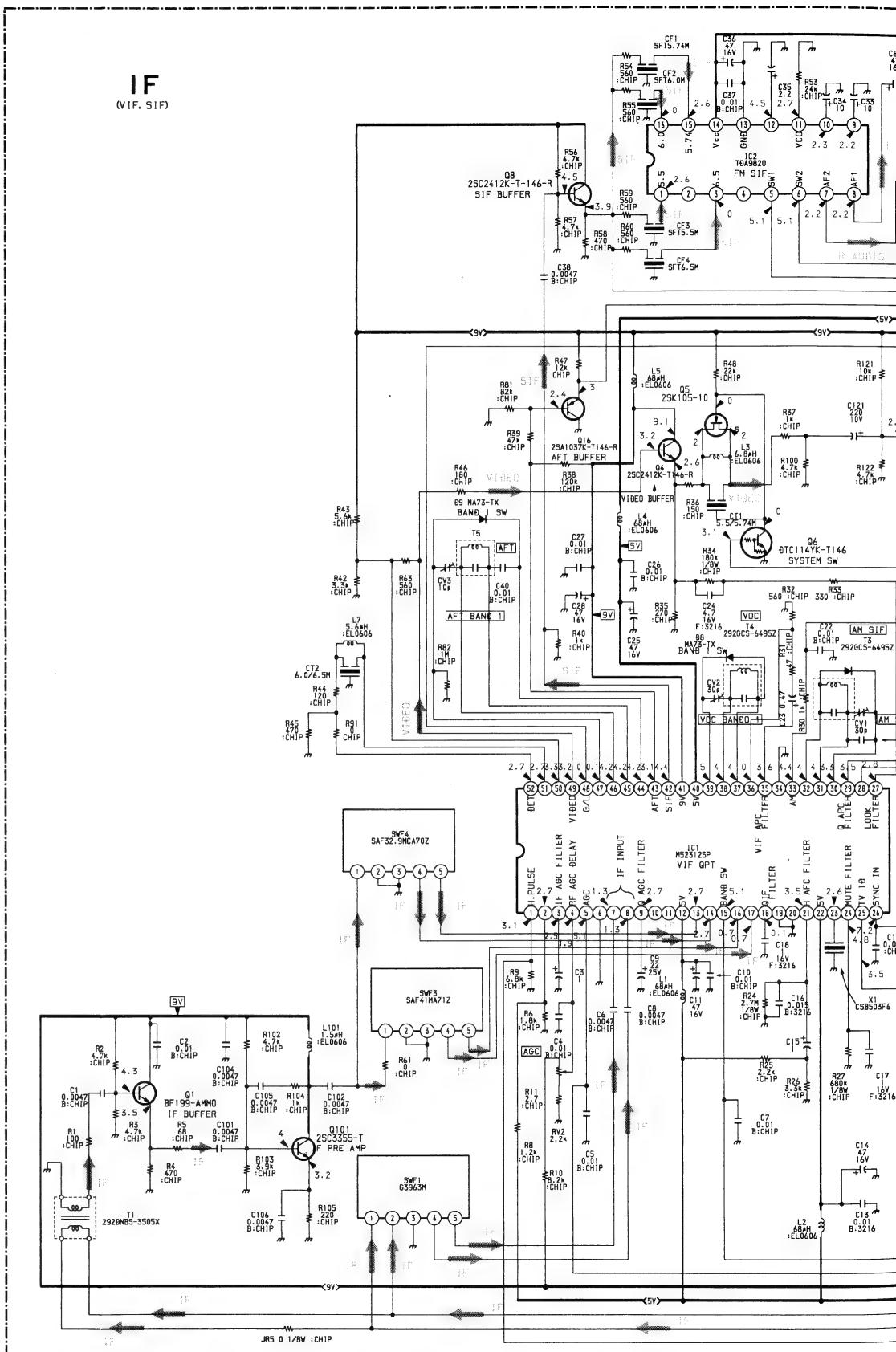
RV701	D - 2
RV702	C - 4

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16

IFH389 (KV-B2511A/B2511D/B2513E/B2511K)



IFH389S (KV-B2511B only)



11

12

13

14

15

16

17

18

19

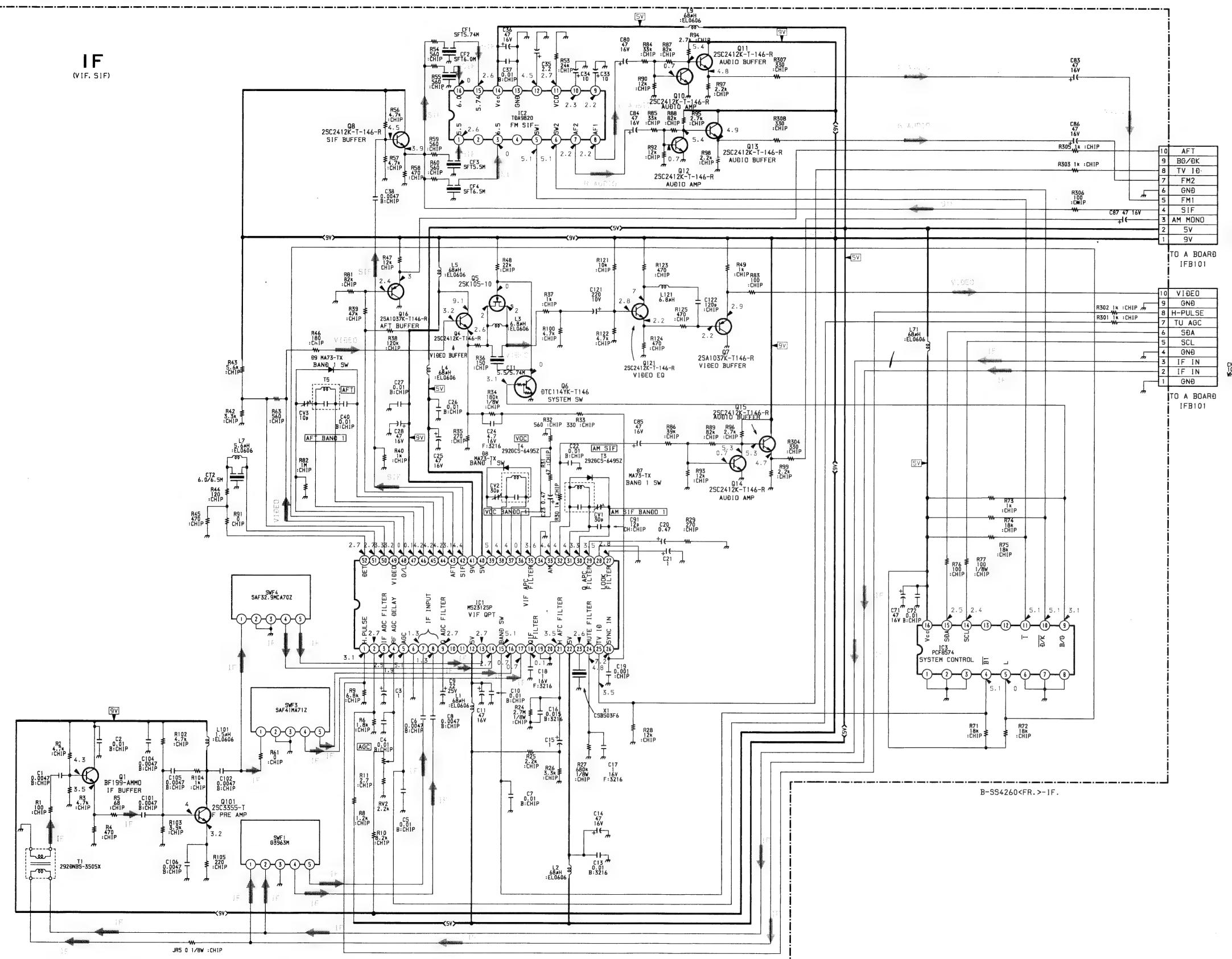
20

21

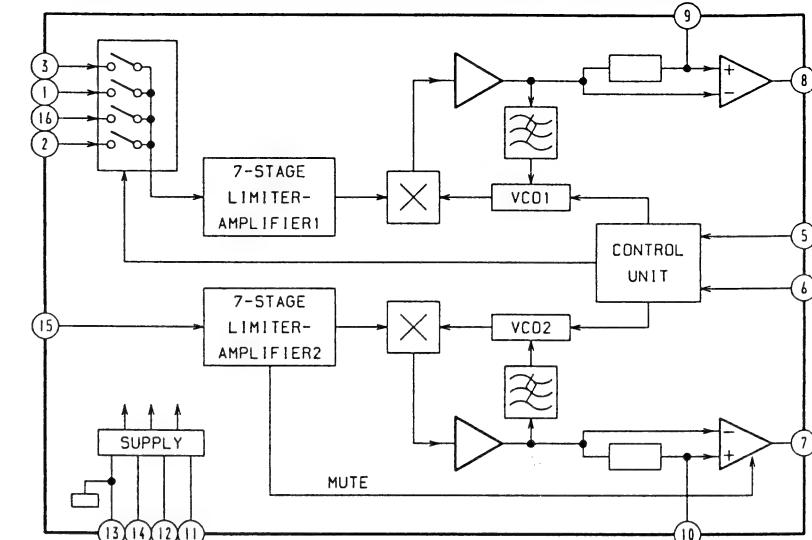
22

23

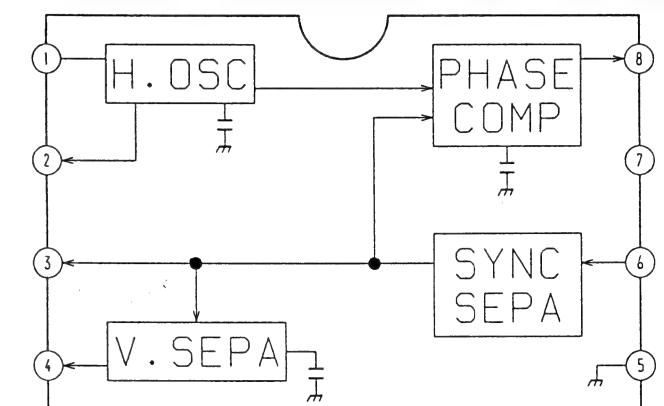
IFH389S (KV-B2511B only)



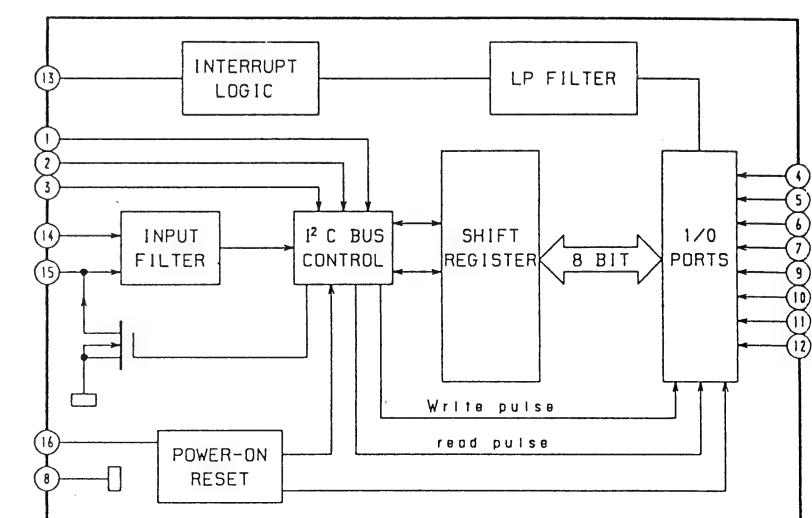
• IF BOARD IC2 TDA9820 (KV-B2511A/B2511D/B2513E/B2511K)

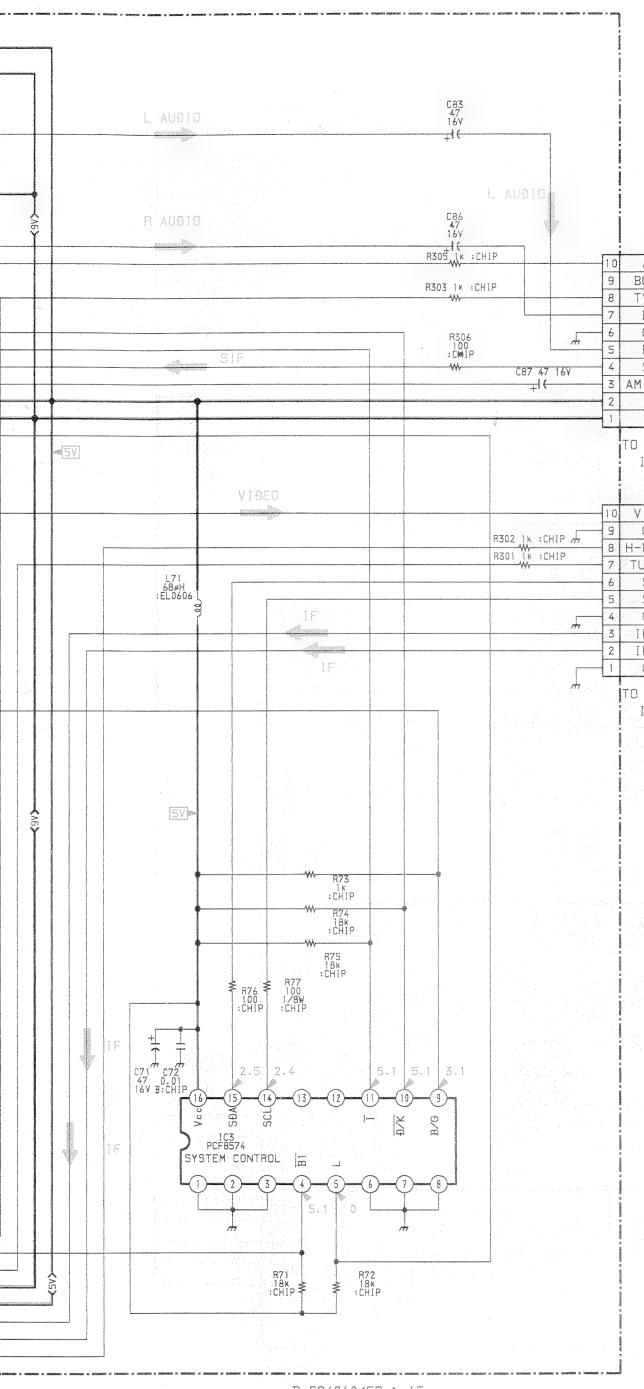


• IF BOARD IC3 BA7046 (KV-B2511A/B2511D/B2513E/B2511K)

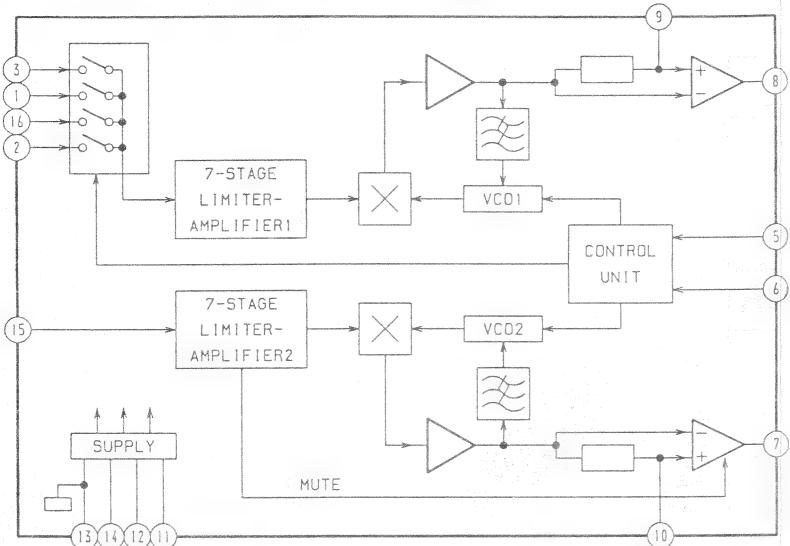


• IF BOARD IC3 PCF8574 (KV-B2511B only)

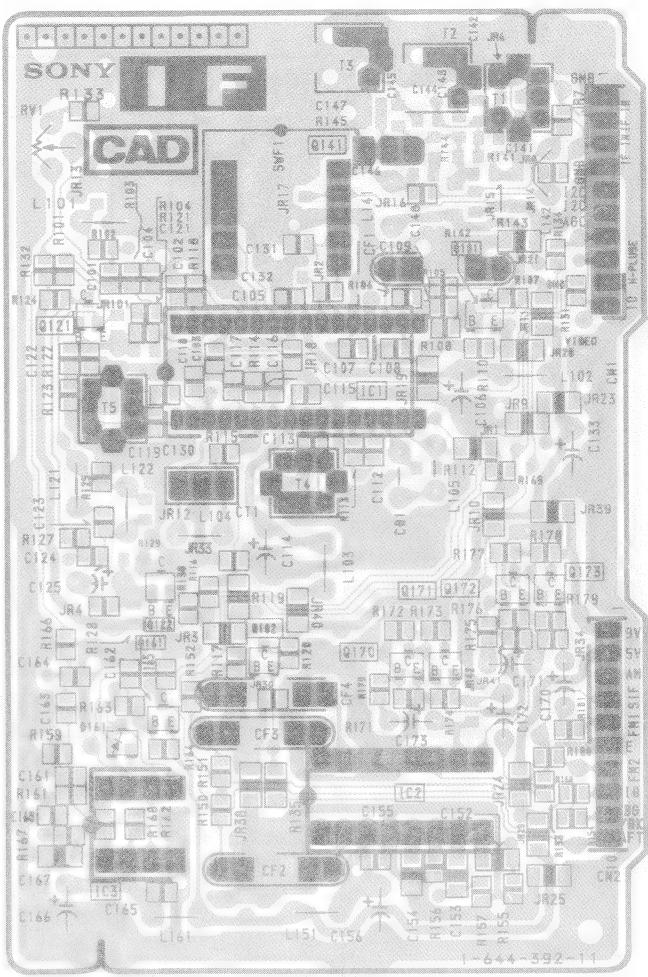




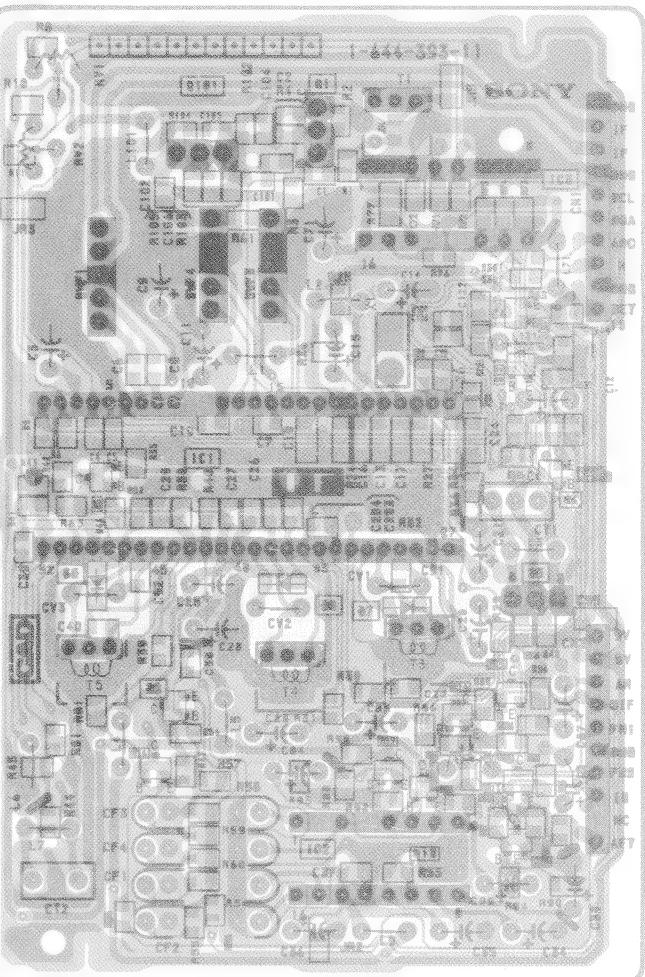
• IF BOARD IC2 TDA9820 (KV-B2511A/B2511D/B2513E/B2511K)



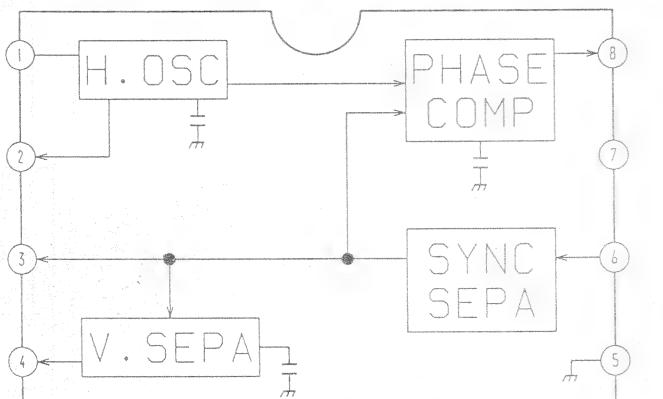
– IF BOARD – (KV-B2511A/B2511D/B2513E/B2511K)



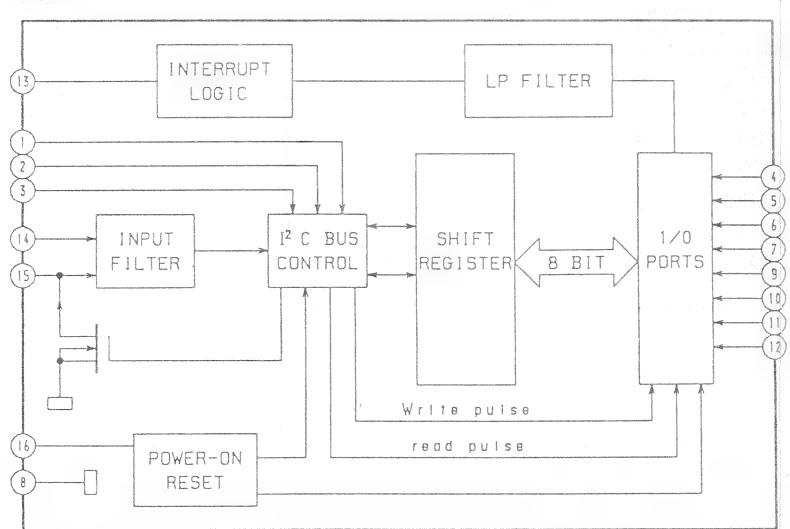
– IF BOARD – (KV-B2511B only)



• IF BOARD IC3 BA7046 (KV-B2511A/B2511D/B2513E/B2511K)



• IF BOARD IC3 PCF8574 (KV-B2511B only)

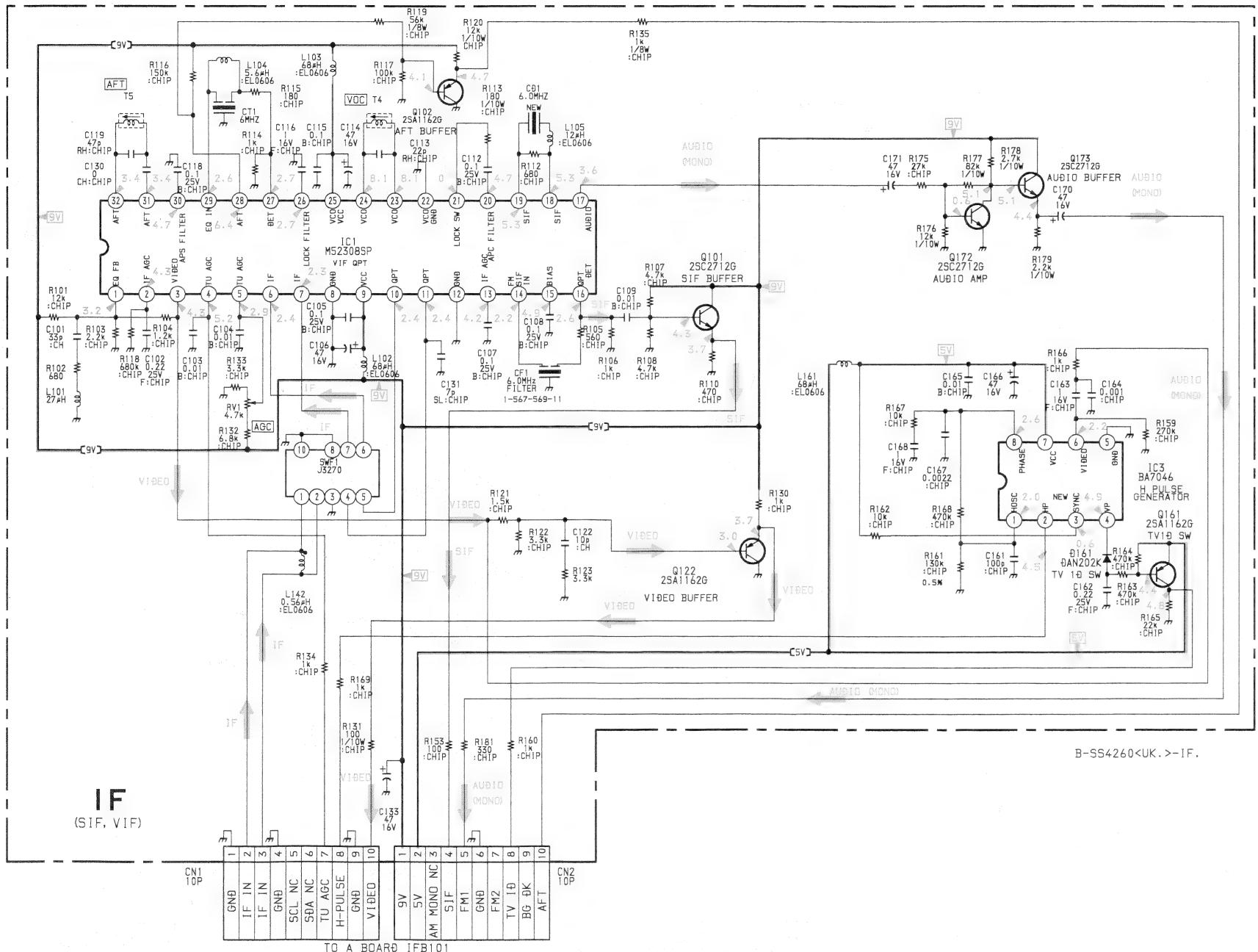


Note :

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

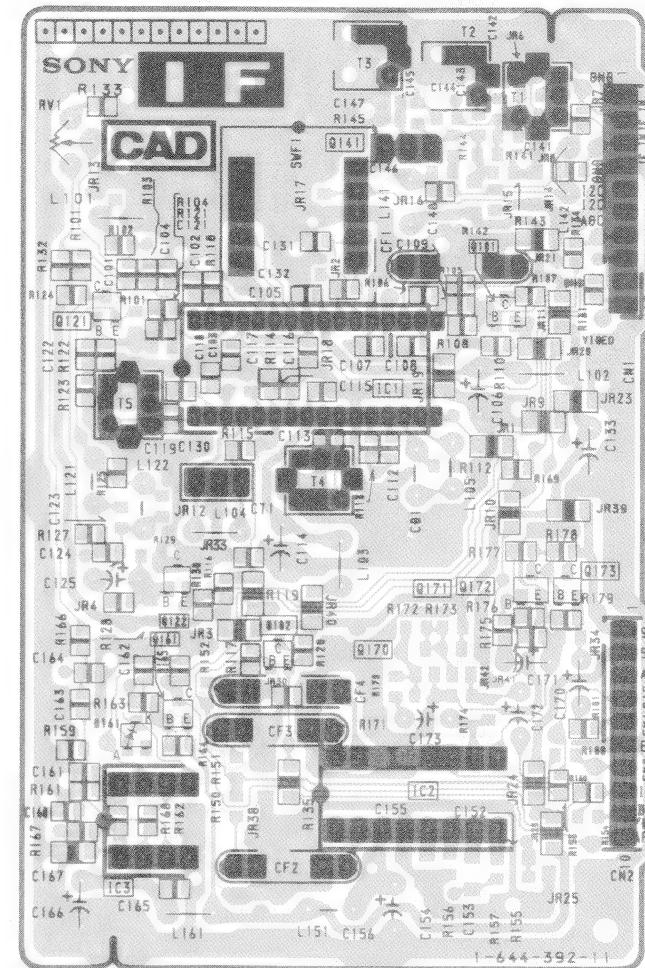
1 2 3 4 5 6 7 8 9 10

A IFH395 (KV-B2512U only)



I F [VIF, SIF]

- IF BOARD - (KV-B2512U only)

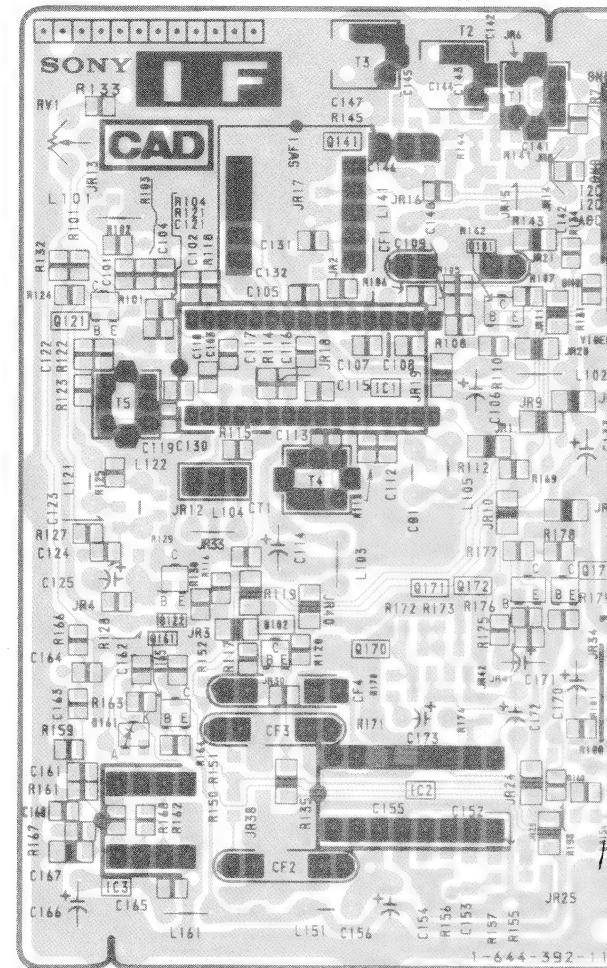
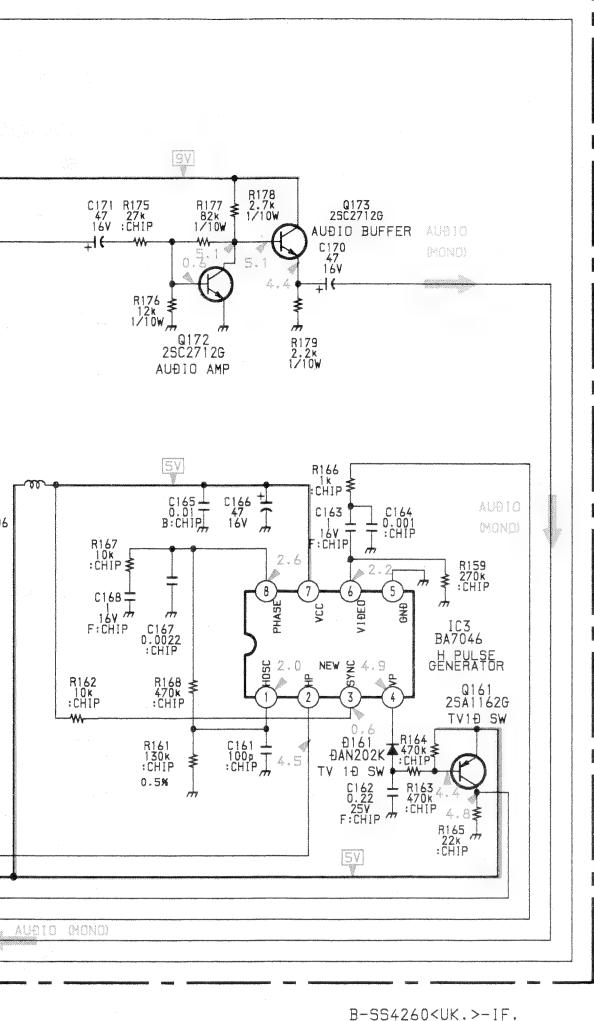


1

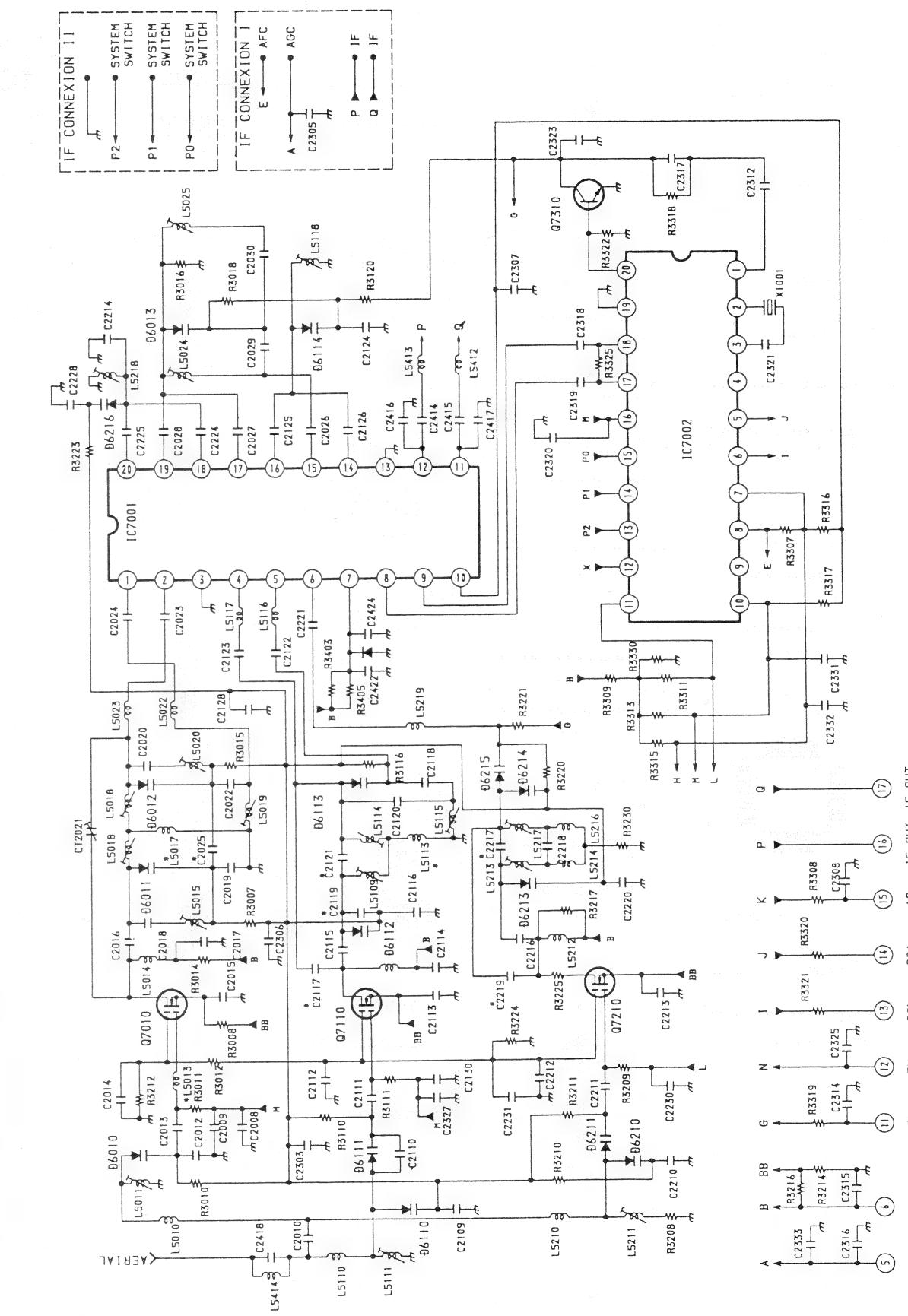
[VIF, SIR]

7 | 8 | 9 | 10

- IF BOARD - (KV-B2512U o

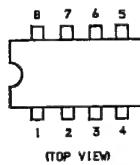


5-5. SCHEMATIC DIAGRAM OF TUNER



5-6. SEMICONDUCTORS

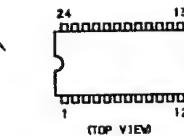
BA7046
LM358D
LM393P
TDA2822-M
TDA4605-3
TEA2114
X24C16P



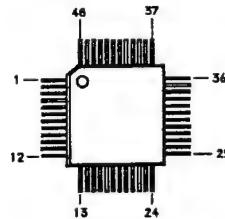
CXA1545AS
CXA1587S



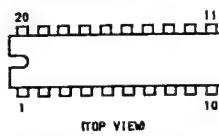
CXD1050A-15P
TDA9145/N1



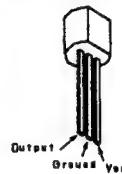
CXD2018Q



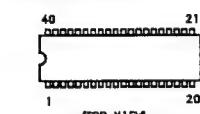
MCM514256AP80
TDA8732



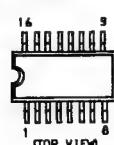
MC78L05ACPRP
MC78L12ACPRP



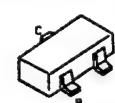
SAA7282P
SDA5248C1



TDA4660V2



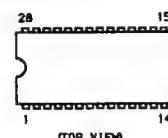
DA116-T146
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DTA144EK
DTA144TK
DTC114EK
DTC124EK
DTC144EK
2SA1162-G
2SC1623-L5L6
2SC2413KQ



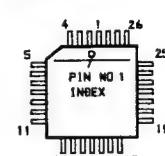
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2SC3298B-Y



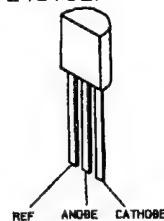
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TDA6612
TDA6622



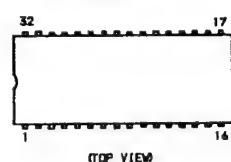
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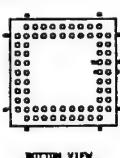
TL431CLP



M52308SP



SDA30C162



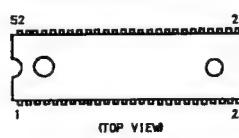
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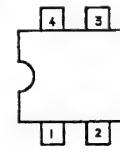
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2SA1091-0
2SC2551-0



M52312SP



SFH617G-1



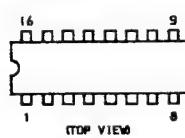
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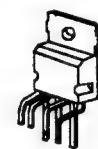
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2SD774-34



PCF8574
TDA9820



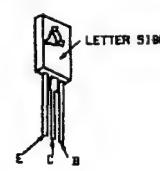
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TDA8138A
TDA8179S



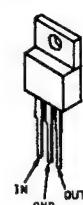
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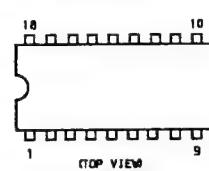
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2SC2688-LK



RC7809FA



TDA2595/V9



2SC2785



2SC492



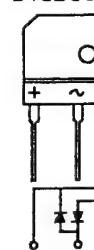
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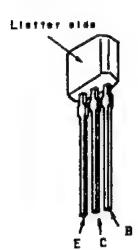
Đ105C6



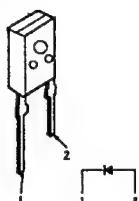
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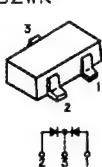
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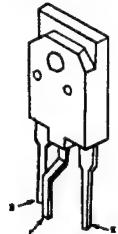
DSI 60



MA152WK



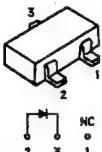
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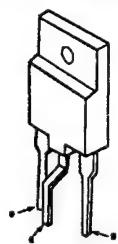
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RGP02-17
RGP02-20EL-6394
RU-3AM
RU-30ALFS1
R2K



MA3039H-TX
MA3047L-TX
RØ5.6M-B2



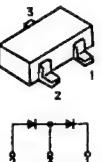
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ESAB92-02
ESB85-009



155226

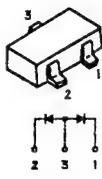


B10SC6M

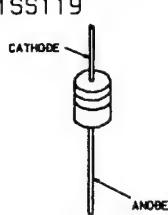
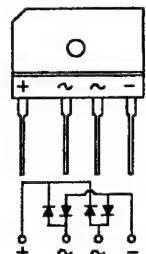


HZS3.6NB1TØ
MTZJ-13C
MTZJ-3.3
MTZJ-9.1
MTZJ-30B
MTZJ-33C
MTZJ-39C
MTZJ-T-72-2.2A
RØ12ES-B2
RØ5.6ES-B1
RØ5.6ES-B2
RØ6.2ES-B2
RØ7.5ES-B2
1SS119

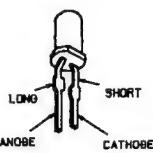
152836



D45B60L-F



LD-201VR



SECTION 6 EXPLODED VIEWS

NOTE:

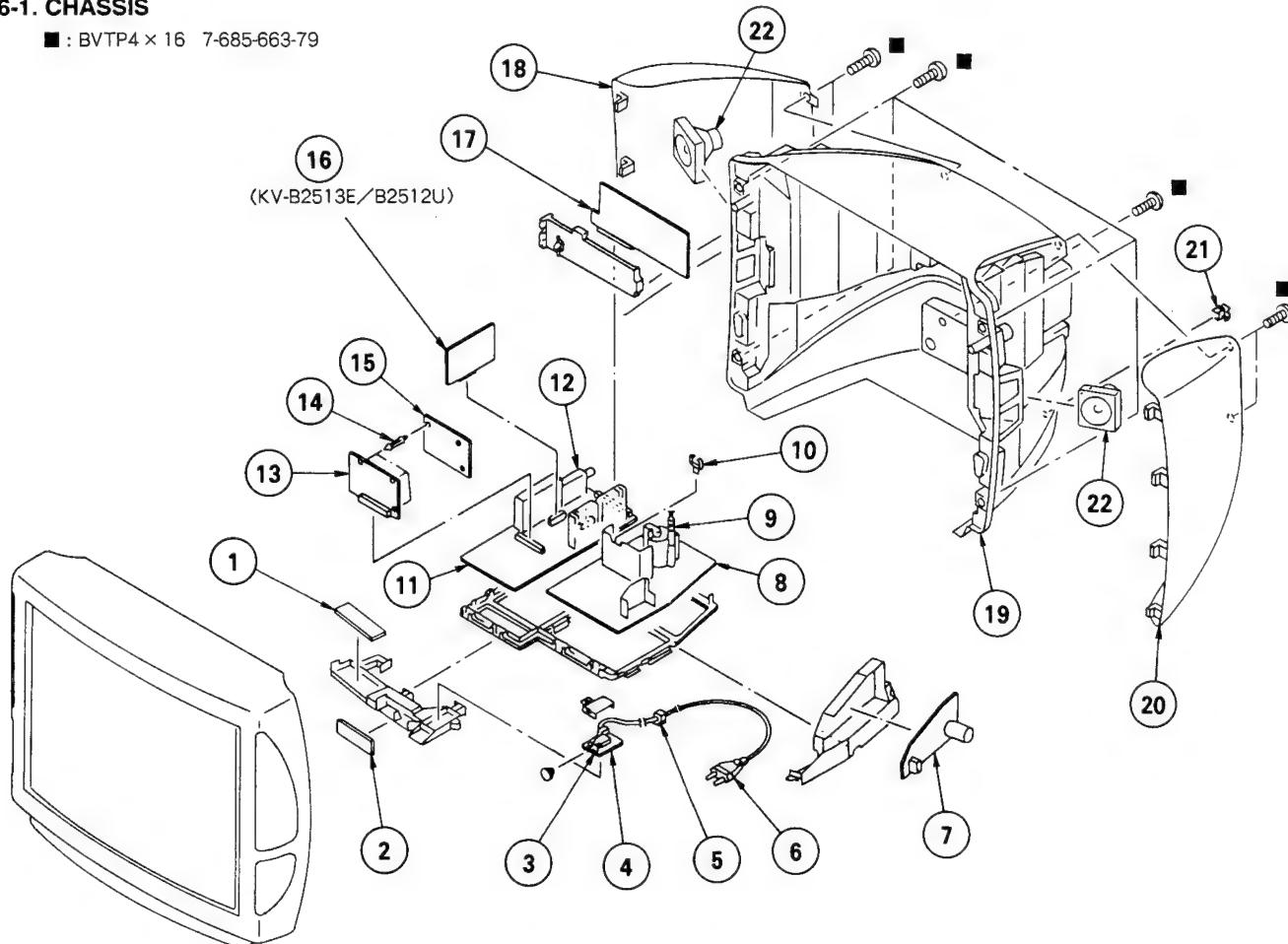
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark **▲** are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque **▲** sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

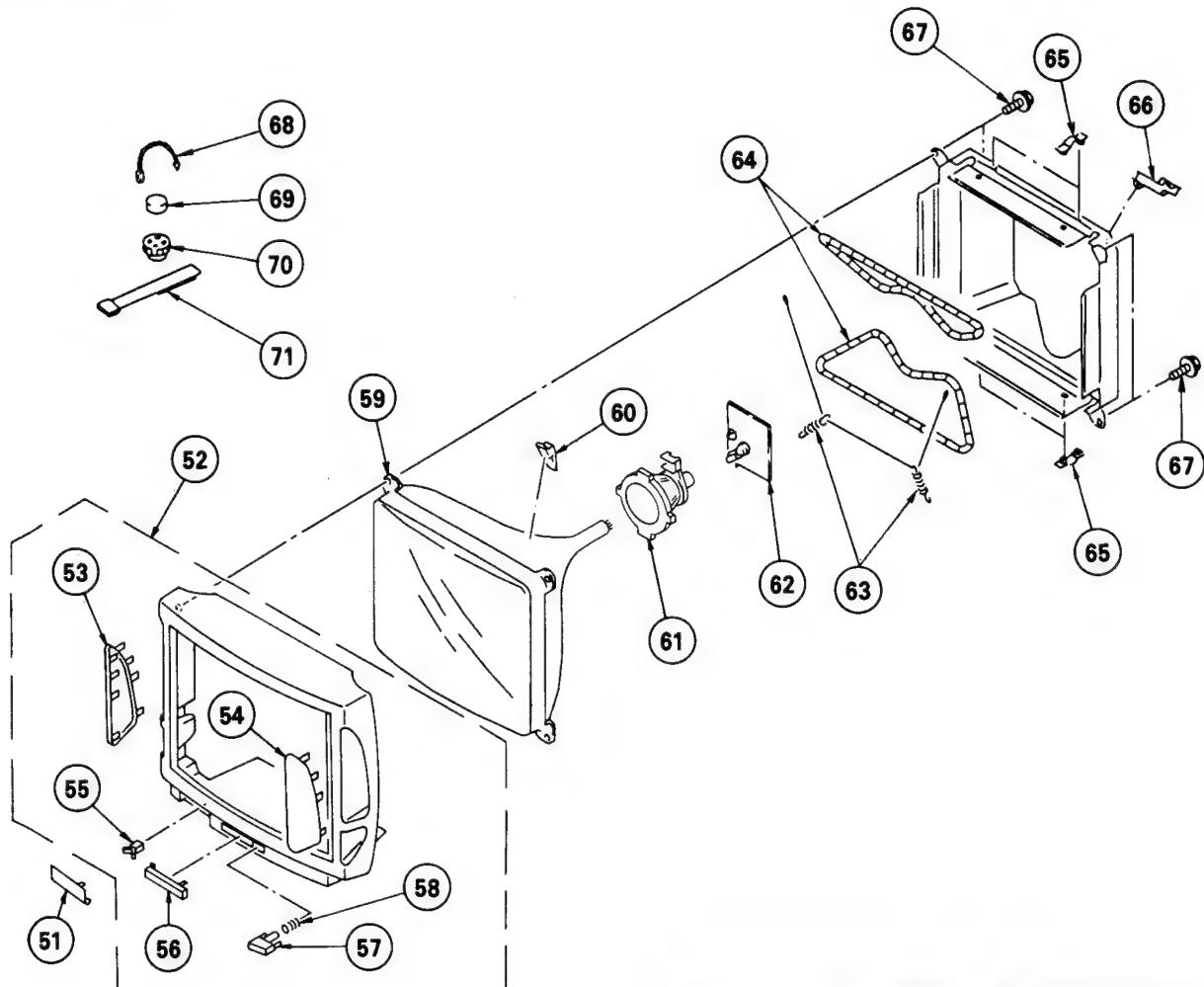
6-1. CHASSIS

■ : BVTP4 × 16 7-685-663-79



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
1	*1-643-004-11	H1 BOARD		12	1-693-185-11	TUNER (UV916H)	
2	*1-642-997-11	H2 BOARD			1-693-184-11	(KV-B2511A,B2511B,B2511D,B2511K,B2513E)	
3	▲ 1-571-433-12	SWITCH, PUSH (AC POWER)		13	*A-1635-001-A	M BOARD, COMPLETE	
4	*A-1624-013-A	F1 BOARD, COMPLETE		14	*4-385-948-01	HOLDER, PCB	
5	▲ 4-389-201-11	HOLDER, AC CORD		15	*A-1645-024-A	V BOARD, COMPLETE	
6	▲ 1-690-296-11	CORD, POWER (WITH NOISE FILTER) (KV-B2511A,B2511B,B2511D,B2511K,B2513E)		16	*A-1630-130-A	A1 BOARD, COMPLETE (KV-B2512U)	
7	▲ 1-590-762-11	CORD, POWER (WITH PLUG) (KV-B2512U)			*A-1630-126-A	A1 BOARD, COMPLETE (KV-B2513E)	
7	*A-1624-014-A	F2 BOARD, COMPLETE		17	*A-1651-040-A	J BOARD, COMPLETE	
8	*A-1642-089-A	D BOARD, COMPLETE		18	4-039-255-01	COVER (LEFT), SPEAKER	
9	▲ 1-453-118-11	TRANSFORMER ASSY, FLYBACK (UX-2600A2)		19	4-039-259-01	COVER, REAR	
10	*3-646-071-00	HOLDER, WIRE		20	4-039-260-01	COVER (RIGHT), SPEAKER	
11	*A-1632-106-A	A BOARD, COMPLETE (KV-B2511A,B2511D,B2511K)		21	▲ 4-038-615-11	HOLDER, AC CORD	
	*A-1632-113-A	A BOARD, COMPLETE (KV-B2511B)		22	0-550-040-01	SPEAKER	
	*A-1632-117-A	A BOARD, COMPLETE (KV-B2512U)					
	*A-1632-114-A	A BOARD, COMPLETE (KV-B2513E)					

6-2. PICTURE TUBE



The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
51	4-039-244-01	DOOR (KV-B2511A, B2511B, B2511D, B2511K)		60	3-704-495-01	SPACER, DY	
	4-039-244-11	DOOR (KV-B2512U, B2513E)		61	Δ 1-451-311-21	DEFLECTION YOKE (Y25FXA)	
52	X-4030-924-1	CABINET ASSY (WITH BEZEL ASSY) 53~58 (KV-B2511A, B2511B, B2511D, B2511K, B2513E)		62	*A-1638-030-A	C BOARD, COMPLETE	
	X-4030-924-2	CABINET ASSY (WITH BEZEL ASSY) 53~58 (KV-B2512U)		63	4-303-774-11	SPRING, GROUND WIRE	
53	4-039-249-01	GRILLE (LEFT), SPEAKER		64	Δ 1-402-746-21	COIL, DEGAUSSING	
54	4-039-250-01	GRILLE (RIGHT), SPEAKER		65	*4-385-916-01	HOLDER (D)	
55	4-392-036-01	CATCHER, PUSH		66	*4-387-284-01	HOLDER, LEAD	
56	4-039-253-01	WINDOW, ORNAMENTAL		67	4-373-263-11	SCREW (M), PT	
57	4-039-248-01	BUTTON, POWER		68	4-308-870-00	CLIP, LEAD WIRE	
58	4-329-112-00	SPRING		69	1-452-032-00	MAGNET, DISK; 10MM ϕ	
59	A 8-733-231-05	PICTURE TUBE (A59JWC61X)		70	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
				71	X-4306-312-0	PERMALLOY ASSY, CONVERGENCE	

SECTION 7

ELECTRICAL PARTS LIST

F1 F2 A1

NOTE:

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS

• MF : μF , PF : $\mu\mu\text{F}$

COILS

• MMH : mH, UH : μH

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK		
*A-1624-013-A	F1 BOARD, COMPLETE	*****		LF662	Δ 1-424-391-11	TRANSFORMER, LINE FILTER			
1-533-230-11	HOLDER, FUSE			LF663	Δ 1-421-862-11	LFT			
<CONNECTOR>									
CN0003 Δ -580-844-11	PIN, CONNECTOR (POWER)			<TRANSISTOR>					
CN083 Δ -695-292-11	PIN, CONNECTOR (POWER)			Q661	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R			
<FUSE>									
F651	Δ 1-576-232-21	FUSE (H.B.C.) 5A/250V		<RESISTOR>					
<SWITCH>									
S651	Δ 1-571-433-12	SWITCH, PUSH (AC POWER)		R663	Δ 1-244-945-91	CARBON	1M	5%	1/2W
*****				R664	Δ 1-205-949-11	WIREWOUND	1.8	5%	10W
*****				R665	Δ 1-218-265-91	METAL GLAZE	8.2M	5%	1W
*****				R666	1-249-405-11	CARBON	100	5%	1/4W F
*****				R667	1-249-430-11	CARBON	12K	5%	1/4W
*****				R668	1-249-434-11	CARBON	27K	5%	1/4W
*****				R669	Δ 1-205-949-11	WIREWOUND	1.8	5%	10W
*****				R671	1-249-415-11	CARBON	680	5%	1/4W F
<RELAY>									
RY661 Δ 1-515-720-31 RELAY									
<TERMISTOR>									
THP661 Δ 1-809-827-11 THERMISTOR POSITIVE									

*A-1630-130-A A1 BOARD, COMPLETE (KV-B2512U)									

*A-1630-126-A A1 BOARD, COMPLETE (KV-B2513E)									

<FILTER>									
BP1101 1-236-238-11 FILTER, BAND PASS (KV-B2512U)									
I-239-047-11 FILTER, BAND PASS (KV-B2513E)									
CF1101 1-409-333-00 TRAP, CERAMIC (6.0MHZ) (KV-B2512U)									
CF1102 1-404-134-00 TRAP, CERAMIC (5.5MHZ) (KV-B2513E)									
<CAPACITOR>									
C1101 1-126-101-11 ELECT 100MF 20% 16V									
C1102 1-126-101-11 ELECT 100MF 20% 16V									
C1103 1-163-038-00 CERAMIC CHIP 0.1MF 25V									
C1104 1-163-077-00 CERAMIC CHIP 0.1MF 10% 25V									
C1105 1-163-081-00 CERAMIC CHIP 0.22MF 25V									
C1106 1-163-187-00 CERAMIC CHIP 180PF 5% 50V									
C1107 1-163-009-11 CERAMIC CHIP 0.001MF 10% 50V									
C1108 1-163-059-00 CERAMIC CHIP 0.01MF 50V									
C1109 1-163-033-00 CERAMIC CHIP 0.022MF 50V									
C1110 1-164-336-11 CERAMIC CHIP 0.33MF 25V									
<CONNECTOR>									
CN0005*1-508-765-00 PIN, CONNECTOR (5MM PITCH) 3P									
CN0007*1-508-786-00 PIN, CONNECTOR (5MM PITCH) 2P									
CN0924*1-568-878-51 PIN, CONNECTOR 3P									
CN0925*1-695-294-11 PIN, CONNECTOR (PC BOARD) 6P									
CN0929*1-508-784-00 PIN, CONNECTOR (5MM PITCH) 1P									
CN0931 Δ 1-691-291-11 PIN, CONNECTOR (PC BOARD) 5P									
<DIODE>									
D661	8-719-911-19	DIODE 1SS119							
D662	8-719-400-18	DIODE MA152WK							
D663	8-719-510-63	DIODE D4SB60L-F							
D664	8-719-921-69	DIODE MTZJ-9.1							
<TRANSFORMER>									
LF661 Δ 1-424-391-11 TRANSFORMER, LINE FILTER									

A1

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK	
C1111	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V	FB1102	1-410-396-41	FERRITE BEAD INDUCTOR	
C1112	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V	FB1103	1-410-396-41	FERRITE BEAD INDUCTOR	
C1113	1-124-477-11	ELECT 47MF	20%	16V	FB1104	1-410-396-41	FERRITE BEAD INDUCTOR	
C1114	1-163-038-00	CERAMIC CHIP 0.1MF		25V	FB1105	1-410-396-41	FERRITE BEAD INDUCTOR	
C1115	1-124-477-11	ELECT 47MF	20%	16V	FB1107	1-410-396-41	FERRITE BEAD INDUCTOR	
C1116	1-106-228-00	MYLAR 0.22MF	10%	100V				
C1117	1-163-081-00	CERAMIC CHIP 0.22MF		25V				
C1118	1-163-113-00	CERAMIC CHIP 68PF	5%	50V			<1C>	
C1119	1-163-193-00	CERAMIC CHIP 330PF	5%	50V				
C1120	1-163-193-00	CERAMIC CHIP 330PF	5%	50V	IC1101	8-759-511-88	IC TDA8732	
					IC1102	8-759-073-17	IC SAA7282P	
C1121	1-163-113-00	CERAMIC CHIP 68PF	5%	50V				
C1122	1-163-081-00	CERAMIC CHIP 0.22MF		25V				
C1123	1-106-228-00	MYLAR 0.22MF	10%	100V			<COIL>	
C1124	1-124-477-11	ELECT 47MF	20%	16V	L1101	1-408-405-00	INDUCTOR	4.7UH
C1125	1-124-477-11	ELECT 47MF	20%	16V	L1102	1-408-405-00	INDUCTOR	4.7UH
C1126	1-163-077-00	CERAMIC CHIP 0.1MF	10%	25V	L1103	1-410-119-11	INDUCTOR	1MMH
C1127	1-163-038-00	CERAMIC CHIP 0.1MF		25V	L1104	1-410-119-11	INDUCTOR	1MMH
C1128	1-124-477-11	ELECT 47MF	20%	16V	L1105	1-408-411-00	INDUCTOR	15UH (KV-B2512U)
C1129	1-163-038-00	CERAMIC CHIP 0.1MF		25V				
C1130	1-163-205-00	CERAMIC CHIP 0.001MF	10%	50V				
C1131	1-163-059-00	CERAMIC CHIP 0.01MF		50V			<TRANSISTOR>	
C1132	1-163-038-00	CERAMIC CHIP 0.1MF		25V	Q1101	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R	
C1133	1-124-907-11	ELECT 10MF	20%	50V	Q1102	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R	
C1134	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V	Q1103	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R	
C1135	1-163-038-00	CERAMIC CHIP 0.1MF		25V	Q1104	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R	
C1136	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	Q1105	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R	
C1137	1-163-038-00	CERAMIC CHIP 0.1MF		25V				
C1138	1-163-105-00	CERAMIC CHIP 33PF	5%	50V	Q1106	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R	
C1139	1-163-105-00	CERAMIC CHIP 33PF	5%	50V	Q1107	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R	
C1140	1-163-181-00	CERAMIC CHIP 100PF	5%	50V	Q1108	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R	
C1141	1-163-205-00	CERAMIC CHIP 0.001MF	5%	50V			<RESISTOR>	
C1142	1-163-019-00	CERAMIC CHIP 0.0068MF		50V				
C1143	1-163-003-11	CERAMIC CHIP 330PF	10%	50V	JR1101	1-216-296-00	METAL GLAZE 0	5% 1/8W
C1144	1-163-121-00	CERAMIC CHIP 150PF	5%	50V	JR1102	1-216-296-00	METAL GLAZE 0	5% (KV-B2513E)
C1145	1-163-121-00	CERAMIC CHIP 150PF	5%	50V	JR1103	1-216-296-00	METAL GLAZE 0	5% 1/8W
C1146	1-163-038-00	CERAMIC CHIP 0.1MF		25V	JR1104	1-216-295-00	METAL GLAZE 0	5% 1/10W
C1147	1-124-477-11	ELECT 47MF	20%	16V				
C1148	1-164-161-11	CERAMIC CHIP 0.0022MF	10%	50V	R1101	1-216-188-00	METAL GLAZE 390	5% 1/8W
C1149	1-124-477-11	ELECT 47MF	20%	16V	R1102	1-216-049-00	METAL GLAZE 1K	5% 1/10W
C1150	1-163-038-00	CERAMIC CHIP 0.1MF		25V	R1103	1-216-198-00	METAL GLAZE 1K	5% 1/8W
C1151	1-163-038-00	CERAMIC CHIP 0.1MF		25V	R1104	1-216-041-00	METAL GLAZE 470	5% 1/10W
C1152	1-124-477-11	ELECT 47MF	20%	16V	R1105	1-216-005-00	METAL GLAZE 15	5% 1/10W
C1153	1-163-087-00	CERAMIC CHIP 4PF	0.25PF	50V				
C1154	1-163-038-00	CERAMIC CHIP 0.1MF		25V	R1106	1-216-036-00	METAL GLAZE 300	5% 1/10W
C1155	1-124-477-11	ELECT 47MF	20%	16V	R1107	1-216-042-00	METAL GLAZE 510	5% 1/10W
C1156	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V	R1108	1-216-063-00	METAL GLAZE 3.9K	5% 1/10W
C1157	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V	R1109	1-216-202-00	METAL GLAZE 1.5K	5% 1/8W
C1158	1-163-038-00	CERAMIC CHIP 0.1MF		25V	R1110	1-216-196-00	METAL GLAZE 820	5% 1/8W
C1159	1-163-243-11	CERAMIC CHIP 47PF	5%	50V	(KV-B2512U)			
					R1111	1-216-041-00	METAL GLAZE 470	5% 1/10W
					R1112	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W
					R1113	1-216-001-00	METAL GLAZE 10	5% 1/10W
					R1114	1-216-105-00	METAL GLAZE 220K	5% 1/10W
					R1115	1-216-121-00	METAL GLAZE 1M	5% 1/10W
<CONNECTOR>								
CN0201	1-695-300-11	CONNECTOR, BOARD TO BOARD 20P			R1116	1-216-198-00	METAL GLAZE 1K	5% 1/8W
					R1117	1-216-097-00	METAL GLAZE 100K	5% 1/10W
					R1118	1-216-097-00	METAL GLAZE 100K	5% 1/10W
					R1119	1-216-073-00	METAL GLAZE 10K	5% 1/10W
					R1120	1-216-232-00	METAL GLAZE 27K	5% 1/8W
<DIODE>								
D1101	8-719-104-34	DIODE 1S2836			R1121	1-216-081-00	METAL GLAZE 22K	5% 1/10W
D1102	8-719-027-70	DIODE 1SV217-TPH3			R1122	1-216-158-00	METAL GLAZE 22	5% 1/8W
D1103	8-719-820-71	DIODE 1SV214			R1123	1-216-158-00	METAL GLAZE 22	5% 1/8W
					R1124	1-216-089-00	METAL GLAZE 47K	5% 1/10W
					R1125	1-216-097-00	METAL GLAZE 100K	5% 1/10W
<FERRITE BEAD>								
FB1101	1-410-396-41	FERRITE BEAD INDUCTOR			R1126	1-216-218-00	METAL GLAZE 6.8K	5% 1/8W
					R1127	1-216-097-00	METAL GLAZE 100K	5% 1/10W

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REF. NO.	PART NO.	DESCRIPTION			REMARK	REF. NO.	PART NO.	DESCRIPTION			REMARK
R1128	1-216-089-00	METAL GLAZE	47K	5%	1/10W	C201	1-130-489-00	FILM	0.033MF	5%	50V
R1129	1-216-089-00	METAL GLAZE	47K	5%	1/10W	C202	1-130-489-00	FILM	0.033MF	5%	50V
R1130	1-216-246-00	METAL GLAZE	100K	5%	1/8W	C203	1-164-005-11	CERAMIC CHIP	0.47MF	25V	
R1131	1-216-218-00	METAL GLAZE	6.8K	5%	1/8W	C204	1-164-005-11	CERAMIC CHIP	0.47MF	25V	
R1132	1-216-097-00	METAL GLAZE	100K	5%	1/10W	C205	1-124-907-11	ELECT	10MF	20%	50V
R1133	1-216-089-00	METAL GLAZE	47K	5%	1/10W	C206	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
R1134	1-216-212-00	METAL GLAZE	3.9K	5%	1/8W	C207	1-137-613-11	FILM	0.0018MF	2%	100V
R1135	1-216-081-00	METAL GLAZE	22K	5%	1/10W	C208	1-164-005-11	CERAMIC CHIP	0.47MF	25V	
R1136	1-216-081-00	METAL GLAZE	22K	5%	1/10W	C209	1-164-005-11	CERAMIC CHIP	0.47MF	25V	
R1137	1-216-095-00	METAL GLAZE	82K	5%	1/10W	C210	1-164-005-11	CERAMIC CHIP	0.47MF	25V	
R1138	1-216-097-00	METAL GLAZE	100K	5%	1/10W	C213	1-163-023-00	CERAMIC CHIP	0.015MF	10%	50V
R1139	1-216-005-00	METAL GLAZE	15	5%	1/10W	C214	1-163-023-00	CERAMIC CHIP	0.015MF	10%	50V
R1140	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	C215	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
R1141	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	C216	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
R1142	1-216-033-00	METAL GLAZE	220	5%	1/10W	C217	1-124-925-11	ELECT	2.2MF	20%	50V
R1143	1-216-049-00	METAL GLAZE	1K	5%	1/10W	C218	1-124-925-11	ELECT	2.2MF	20%	50V
R1144	1-216-049-00	METAL GLAZE	1K	5%	1/10W	C219	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
R1145	1-216-001-00	METAL GLAZE	10	5%	1/10W	C220	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
R1146	1-216-049-00	METAL GLAZE	1K	5%	1/10W	C221	1-124-925-11	ELECT	2.2MF	20%	50V
R1147	1-216-045-00	METAL GLAZE	680	5%	1/10W	C222	1-124-925-11	ELECT	2.2MF	20%	50V
R1148	1-216-049-00	METAL GLAZE	1K	5%	1/10W	C223	1-136-177-00	FILM	1MF	5%	50V
R1149	1-216-001-00	METAL GLAZE	10	5%	1/10W	C224	1-136-177-00	FILM	1MF	5%	50V
R1150	1-216-045-00	METAL GLAZE	680	5%	1/10W	C225	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
R1151	1-216-049-00	METAL GLAZE	1K	5%	1/10W	C226	1-163-007-11	CERAMIC CHIP	680PF	10%	50V
R1152	1-216-049-00	METAL GLAZE	1K	5%	1/10W	C227	1-124-907-11	ELECT	10MF	20%	50V
R1153	1-216-049-00	METAL GLAZE	1K	5%	1/10W	C228	1-124-907-11	ELECT	10MF	20%	50V
R1154	1-216-041-00	METAL GLAZE	470	5%	1/10W	C229	1-124-478-11	ELECT	100MF	20%	25V
						C230	1-124-478-11	ELECT	100MF	20%	25V
						C231	1-164-346-11	CERAMIC CHIP	1MF	16V	
						C232	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
X1101	1-579-689-21	VIBRATOR, CRYSTAL				C233	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
X1102	1-579-283-11	VIBRATOR, CRYSTAL (KV-B2512U)				C234	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
	1-579-282-21	VIBRATOR, CRYSTAL (KV-B2513E)				C235	1-130-772-00	FILM	0.22MF	5%	63V
						C236	1-124-618-11	ELECT	2200MF	20%	35V
						C237	1-124-618-11	ELECT	2200MF	20%	35V
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*A-1632-106-A A BOARD, COMPLETE											

(KV-B2511A,B2511D,B2511K)											
*A-1632-113-A A BOARD, COMPLETE (KV-B2511B)											

*A-1632-117-A A BOARD, COMPLETE (KV-B2512U)											

*A-1632-114-A A BOARD, COMPLETE (KV-B2513E)											

4-200-001-11 HOLDER, IC											
4-201-023-11 SPACER, INSULATING											
<CAPACITOR>											
C071	1-124-126-00	ELECT	47MF	20%	10V	C301	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C072	1-124-120-11	ELECT	220MF	20%	16V	C302	1-164-337-11	CERAMIC CHIP	2.2MF	16V	
C074	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	C303	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C102	1-126-103-11	ELECT	470MF	20%	16V	C304	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C103	1-163-031-11	CERAMIC CHIP	0.01MF		50V	C305	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C104	1-124-910-11	ELECT	47MF	20%	50V	C306	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C105	1-124-916-11	ELECT	22MF	20%	50V	C307	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C106	1-124-927-11	ELECT	4.7MF	20%	50V	C308	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
						C309	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
						C310	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
						C311	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
						C312	1-124-910-11	ELECT	47MF	20%	50V
						C313	1-163-077-00	CERAMIC CHIP	0.1MF	25V	
						C314	1-163-038-00	CERAMIC CHIP	0.1MF	20%	50V
						C315	1-124-910-11	ELECT	47MF	20%	50V
						C316	1-163-077-00	CERAMIC CHIP	0.1MF	50V	
						C317	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
						C318	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
						C319	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
						C320	1-124-910-11	ELECT	47MF	20%	50V

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK	
C321	1-163-038-00	CERAMIC CHIP 0.1MF	25V			<CONNECTOR>		
C322	1-124-916-11	ELECT 22MF	20% 50V			CN0001*1-568-880-51 PIN, CONNECTOR 5P		
C323	1-163-135-00	CERAMIC CHIP 560PF	5% 50V			CNO101 1-695-297-11 CONNECTOR, BOARD TO BOARD 20P		
C324	1-124-910-11	ELECT 47MF	20% 50V			(KV-B251U, B2513E)		
C325	1-163-111-00	CERAMIC CHIP 56PF	5% 50V			CNO103*1-564-511-71 PLUG, CONNECTOR 8P		
C326	1-163-109-00	CERAMIC CHIP 47PF	5% 50V			CNO104*1-568-882-51 PIN, CONNECTOR 7P		
C341	1-163-077-00	CERAMIC CHIP 0.1MF	10% 25V			CNO105*1-568-880-51 PIN, CONNECTOR 5P		
C342	1-163-077-00	CERAMIC CHIP 0.1MF	10% 25V			CNO107*1-568-879-51 PIN, CONNECTOR 4P		
C343	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V			CNO108*1-568-878-51 PIN, CONNECTOR 3P		
C344	1-162-638-11	CERAMIC CHIP 1MF	16V			CNO109 1-695-299-11 CONNECTOR, BOARD TO BOARD 50P		
C345	1-164-346-11	CERAMIC CHIP 1MF	16V			CNO110*1-568-882-51 PIN, CONNECTOR 7P		
C347	1-162-638-11	CERAMIC CHIP 1MF	16V			CNO113 1-695-298-11 CONNECTOR, BOARD TO BOARD 40P		
C348	1-164-346-11	CERAMIC CHIP 1MF	16V			CNO137*1-564-511-51 PLUG, CONNECTOR 8P		
C349	1-164-346-11	CERAMIC CHIP 1MF	16V			CN5108*1-564-513-11 PLUG, CONNECTOR 10P		
C350	1-124-907-11	ELECT 10MF	20% 50V					
C351	1-124-916-11	ELECT 22MF	20% 50V			<DIODE>		
C353	1-164-346-11	CERAMIC CHIP 1MF	16V		D068	8-719-104-34 DIODE 1S2836		
C354	1-164-346-11	CERAMIC CHIP 1MF	16V		D069	8-719-104-34 DIODE 1S2836		
C355	1-162-638-11	CERAMIC CHIP 1MF	16V		D071	8-719-109-89 DIODE RD5.6ES-B2		
C356	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V		D073	8-719-109-89 DIODE RD5.6ES-B2		
D075	8-719-400-18	DIODE MA152WK			D075	8-719-400-18 DIODE MA152WK		
C357	1-164-299-11	CERAMIC CHIP 0.22MF	10% 25V		D077	8-719-400-18 DIODE MA152WK		
C358	1-164-299-11	CERAMIC CHIP 0.22MF	10% 25V		D078	8-719-109-89 DIODE RD5.6ES-B2		
C359	1-124-907-11	ELECT 10MF	20% 50V		D079	8-719-109-89 DIODE RD5.6ES-B2		
C361	1-163-101-00	CERAMIC CHIP 22PF	5% 50V		D101	8-719-982-27 DIODE MTZJ-33C		
C362	1-130-772-00	FILM 0.22MF	5% 63V		D206	8-719-400-18 DIODE MA152WK		
C363	1-124-907-11	ELECT 10MF	20% 50V		D207	8-719-921-89 DIODE MTZJ-13C		
C365	1-124-120-11	ELECT 220MF	20% 16V		D208	8-719-911-19 DIODE 1SS119		
C366	1-124-903-11	ELECT 1MF	20% 50V		D209	8-719-911-19 DIODE 1SS119		
C401	1-164-005-11	CERAMIC CHIP 0.47MF	16V		D210	8-719-911-19 DIODE 1SS119		
C402	1-124-917-11	ELECT 33MF	20% 50V		D211	8-719-911-19 DIODE 1SS119		
C403	1-162-637-11	CERAMIC CHIP 0.47MF	16V		D212	8-719-911-19 DIODE 1SS119		
C411	1-164-005-11	CERAMIC CHIP 0.47MF	25V		D213	8-719-400-18 DIODE MA152WK		
C412	1-164-005-11	CERAMIC CHIP 0.47MF	25V		D301	8-719-400-18 DIODE MA152WK		
C421	1-124-910-11	ELECT 47MF	20% 50V		D302	8-719-104-34 DIODE 1S2836		
C422	1-124-910-11	ELECT 47MF	20% 50V		D304	8-719-109-89 DIODE RD5.6ES-B2		
C423	1-101-004-00	CERAMIC 0.01MF	50V		D306	8-719-400-18 DIODE MA152WK		
C424	1-163-129-00	CERAMIC CHIP 330PF	5% 50V		D307	8-719-400-18 DIODE MA152WK		
C425	1-163-129-00	CERAMIC CHIP 330PF	5% 50V		D308	8-719-800-76 DIODE 1SS226		
C426	1-124-910-11	ELECT 47MF	20% 50V		D381	8-719-110-03 DIODE RD7.5ES-B2		
C427	1-164-346-11	CERAMIC CHIP 1MF	16V		D401	8-719-921-69 DIODE MTZJ-9.1		
C428	1-164-346-11	CERAMIC CHIP 1MF	16V		D403	8-719-921-69 DIODE MTZJ-9.1		
C429	1-124-119-00	ELECT 330MF	20% 16V		D405	8-719-921-69 DIODE MTZJ-9.1		
C574	1-163-117-00	CERAMIC CHIP 100PF	5% 50V		D406	8-719-921-69 DIODE MTZJ-9.1		
C581	1-163-031-11	CERAMIC CHIP 0.01MF	50V		D407	8-719-921-69 DIODE MTZJ-9.1		
C582	1-124-916-11	ELECT 22MF	20% 50V		D571	8-719-800-76 DIODE 1SS226		
C583	1-163-129-00	CERAMIC CHIP 330PF	5% 50V		D682	8-719-109-89 DIODE RD5.6ES-B2		
C586	1-163-063-00	CERAMIC CHIP 0.022MF	10% 50V					
C587	1-124-903-11	ELECT 1MF	20% 50V					
C588	1-164-346-11	CERAMIC CHIP 1MF	16V					
C589	1-126-103-11	ELECT 470MF	20% 16V					
C590	1-124-916-11	ELECT 22MF	20% 50V			<IC>		
C591	1-124-925-11	ELECT 2.2MF	20% 50V		IC072	8-759-073-14 IC X24C16P		
C592	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V		IC201	8-759-073-30 IC TDA6612		
C593	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V			(KV-B2511A, B2511B, B2511D, B2511K, B2513E)		
C595	1-163-109-00	CERAMIC CHIP 47PF	5% 50V		IC202	8-759-073-31 IC TDA6622 (KV-B2512U)		
C599	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V			IC202	8-759-502-21 IC TDA2822M	
C681	1-124-478-11	ELECT 100MF	20% 25V		IC251	8-759-072-99 IC TDA2052		
C682	1-126-101-11	ELECT 100MF	20% 16V		IC261	8-759-072-99 IC TDA2052		
C683	1-124-478-11	ELECT 100MF	20% 25V		IC301	8-759-073-15 IC TDA9145/N1		
C684	1-124-478-11	ELECT 100MF	20% 25V		IC302	8-759-084-91 IC TDA4661/V2		
C685	1-124-478-11	ELECT 100MF	20% 25V					

<FILTER>

CF581 1-577-611-11 OSCILALTOR, CERAMIC

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Les composants identifiés par une trame et une marque **▲** sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark **▲** are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
IC304	8-752-056-54	IC CXA1587S		JR102	1-216-295-00	METAL GLAZE	0 5% 1/10W
IC401	8-752-062-86	IC CXA1545AS		JR104	1-216-295-00	METAL GLAZE	0 5% 1/10W
IC402	8-759-073-00	IC TEA2114		JR105	1-216-295-00	METAL GLAZE	0 5% 1/10W
IC681	8-759-072-98	IC TDA8138A		JR107	1-216-295-00	METAL GLAZE	0 5% 1/10W
IC683	8-759-982-10	IC RC7809FA		JR110	1-216-295-00	METAL GLAZE	0 5% 1/10W
IC684	8-759-982-10	IC RC7809FA		JR111	1-216-295-00	METAL GLAZE	0 5% 1/10W
			<IF BLOCK>	JR112	1-216-295-00	METAL GLAZE	0 5% 1/10W
IFB101	1-466-733-11	IF BLOCK (IFH-389) (KV-B2511A, B2511D, B2511K, B2513E)		JR113	1-216-295-00	METAL GLAZE	0 5% 1/10W
	1-466-735-11	IF BLOCK (IFH-389F) (KV-B2511B)		JR114	1-216-295-00	METAL GLAZE	0 5% 1/10W
	1-466-734-11	IF BLOCK (IFH-395) (KV-B2512U)		JR115	1-216-295-00	METAL GLAZE	0 5% 1/10W
			<COIL>	JR116	1-216-295-00	METAL GLAZE	0 5% 1/10W
L101	1-412-546-41	INDUCTOR	560UH	JR117	1-216-295-00	METAL GLAZE	0 5% 1/10W
L102	1-408-413-00	INDUCTOR	22UH	JR118	1-216-295-00	METAL GLAZE	0 5% 1/10W
L201	1-407-500-00	INDUCTOR	4.7MH	JR119	1-216-295-00	METAL GLAZE	0 5% 1/10W
L307	1-408-405-00	INDUCTOR	4.7UH	JR120	1-216-295-00	METAL GLAZE	0 5% 1/10W
L308	1-408-417-00	INDUCTOR	47UH	JR121	1-216-295-00	METAL GLAZE	0 5% 1/10W
L309	1-408-409-00	INDUCTOR	10UH	JR122	1-216-295-00	METAL GLAZE	0 5% 1/10W
L310	1-410-396-41	FERRITE BEAD	INDUCTOR	JR123	1-216-295-00	METAL GLAZE	0 5% 1/10W
L572	1-410-119-11	INDUCTOR	1MMH	JR125	1-216-295-00	METAL GLAZE	0 5% 1/10W
L610	1-412-539-41	INDUCTOR	150UH	JR127	1-216-295-00	METAL GLAZE	0 5% 1/10W
L611	1-412-539-41	INDUCTOR	150UH	JR129	1-216-295-00	METAL GLAZE	0 5% 1/10W
			<IC LINK>	JR131	1-216-295-00	METAL GLAZE	0 5% 1/10W
PS681A	1-532-605-91	LINK, IC 0.4A		JR132	1-216-295-00	METAL GLAZE	0 5% 1/10W
				JR133	1-216-295-00	METAL GLAZE	0 5% 1/10W
			<TRANSISTOR>	JR134	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q071	8-729-901-05	TRANSISTOR DTA124EK		JR136	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q101	8-729-216-22	TRANSISTOR 2SA1162-G		JR137	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q102	8-729-901-00	TRANSISTOR DTC124EK		JR138	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q103	8-729-900-53	TRANSISTOR DTC114EK		JR140	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q201	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		JR141	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q202	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		JR142	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q203	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		JR143	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q204	8-729-216-22	TRANSISTOR 2SA1162-G		JR144	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q205	8-729-216-22	TRANSISTOR 2SA1162-G		JR150	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q206	8-729-216-22	TRANSISTOR 2SA1162-G		JR152	1-216-295-00	METAL GLAZE	0 5% 1/10W
Q207	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		JR201A	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q209	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		JR202	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q210	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		JR203	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q303	8-729-216-22	TRANSISTOR 2SA1162-G		JR204	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q304	8-729-900-53	TRANSISTOR DTC114EK		JR205	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q306	8-729-216-22	TRANSISTOR 2SA1162-G		JR206	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q311	8-729-901-06	TRANSISTOR DTA144EK		JR207	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q312	8-729-900-53	TRANSISTOR DTC114EK		JR208	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q313	8-729-216-22	TRANSISTOR 2SA1162-G		JR209	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q401	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		JR210	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q402	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		JR211	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q403	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		JR212	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q581	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		JR213	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q582	8-729-216-22	TRANSISTOR 2SA1162-G		JR214	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q610	8-729-140-97	TRANSISTOR 2SB734-34		JR215	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q611	8-729-900-53	TRANSISTOR DTC114EK		JR216	1-216-296-00	METAL GLAZE	0 5% 1/8W
Q683	8-729-140-96	TRANSISTOR 2SD774-34		JR217	1-216-296-00	METAL GLAZE	0 5% 1/8W
			<RESISTOR>	JR218	1-216-296-00	METAL GLAZE	0 5% 1/8W
JR101	1-216-295-00	METAL GLAZE	0 5% 1/10W	JR219	1-216-296-00	METAL GLAZE	0 5% 1/8W
				JR220	1-216-296-00	METAL GLAZE	0 5% 1/8W
				JR221	1-216-296-00	METAL GLAZE	0 5% 1/8W
				JR222	1-216-296-00	METAL GLAZE	0 5% 1/8W
				JR223	1-216-296-00	METAL GLAZE	0 5% 1/8W
				JR225	1-216-296-00	METAL GLAZE	0 5% 1/8W
				JR226	1-216-296-00	METAL GLAZE	0 5% 1/8W
				JR227	1-216-296-00	METAL GLAZE	0 5% 1/8W
				JR228	1-216-296-00	METAL GLAZE	0 5% 1/8W
				JR229	1-216-296-00	METAL GLAZE	0 5% 1/8W
				JR230	1-216-296-00	METAL GLAZE	0 5% 1/8W

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
JR231	1-216-296-00	METAL GLAZE	0 5% 1/8W	R228	1-216-081-00	METAL GLAZE	22K 5% 1/10W
JR232	1-216-296-00	METAL GLAZE	0 5% 1/8W	R229	1-216-039-00	METAL GLAZE	390 5% 1/10W
JR233	1-216-296-00	METAL GLAZE	0 5% 1/8W	R230	1-216-246-00	METAL GLAZE	100K 5% 1/8W
JR234	1-216-296-00	METAL GLAZE	0 5% 1/8W	R231	1-216-097-00	METAL GLAZE	100K 5% 1/10W
JR235	1-216-296-00	METAL GLAZE	0 5% 1/8W	R232	1-216-081-00	METAL GLAZE	22K 5% 1/10W
JR236	1-216-296-00	METAL GLAZE	0 5% 1/8W	R233	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
JR237	1-216-296-00	METAL GLAZE	0 5% 1/8W	R234	1-216-077-00	METAL GLAZE	15K 5% 1/10W
JR238	1-216-296-00	METAL GLAZE	0 5% 1/8W	R235	1-216-073-00	METAL GLAZE	10K 5% 1/10W
JR239	1-216-296-00	METAL GLAZE	0 5% 1/8W	R236	1-216-081-00	METAL GLAZE	22K 5% 1/10W
JR240	1-216-296-00	METAL GLAZE	0 5% 1/8W	R237	1-216-025-00	METAL GLAZE	100 5% 1/10W
JR241	1-216-296-00	METAL GLAZE	0 5% 1/8W	R238	1-216-025-00	METAL GLAZE	100 5% 1/10W
JR242	1-216-296-00	METAL GLAZE	0 5% 1/8W	R239	1-216-295-00	METAL GLAZE	0 5% 1/10W
JR243	1-216-296-00	METAL GLAZE	0 5% 1/8W	R241	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
JR245	1-216-296-00	METAL GLAZE	0 5% 1/8W	R242	1-216-214-00	METAL GLAZE	4.7K 5% 1/8W
JR247	1-216-296-00	METAL GLAZE	0 5% 1/8W	R244	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W
JR248	1-216-296-00	METAL GLAZE	0 5% 1/8W	R245	1-216-089-00	METAL GLAZE	47K 5% 1/10W
JR250	1-216-296-00	METAL GLAZE	0 5% 1/8W	R246	1-216-097-00	METAL GLAZE	100K 5% 1/10W
JR251	1-216-296-00	METAL GLAZE	0 5% 1/8W	R247	1-216-073-00	METAL GLAZE	10K 5% 1/10W
JR252	1-216-296-00	METAL GLAZE	0 5% 1/8W	R248	1-216-073-00	METAL GLAZE	10K 5% 1/10W
JR253	1-216-296-00	METAL GLAZE	0 5% 1/8W	R249	1-216-045-00	METAL GLAZE	680 5% 1/10W
JR254	1-216-296-00	METAL GLAZE	0 5% 1/8W	R250	1-216-095-00	METAL GLAZE	82K 5% 1/10W
JR255	1-216-295-00	METAL GLAZE	0 5% 1/10W	R251	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
JR256	1-216-296-00	METAL GLAZE	0 5% 1/8W	R252	1-216-073-00	METAL GLAZE	10K 5% 1/10W
JR257	1-216-295-00	METAL GLAZE	0 5% 1/10W	R253	1-216-073-00	METAL GLAZE	10K 5% 1/10W
JR258	1-216-296-00	METAL GLAZE	0 5% 1/8W	R254	1-216-252-00	METAL GLAZE	180K 5% 1/8W
JR270	1-216-295-00	METAL GLAZE	0 5% 1/10W	R255	1-216-252-00	METAL GLAZE	180K 5% 1/8W
JR272	1-216-295-00	METAL GLAZE	0 5% 1/10W	R256	1-249-409-11	CARBON	220 5% 1/4W
R071	1-216-041-00	METAL GLAZE	470 5% 1/10W	R257	1-249-409-11	CARBON	220 5% 1/4W
R072	1-216-033-00	METAL GLAZE	220 5% 1/10W	R258	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R073	1-216-033-00	METAL GLAZE	220 5% 1/10W	R259	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W
R074	1-216-198-00	METAL GLAZE	1K 5% 1/8W	R260	1-216-212-00	METAL GLAZE	3.9K 5% 1/8W
R076	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R301	1-216-041-00	METAL GLAZE	470 5% 1/10W
R077	1-216-025-00	METAL GLAZE	100 5% 1/10W	R302	1-216-041-00	METAL GLAZE	470 5% 1/10W
R101	1-216-025-00	METAL GLAZE	100 5% 1/10W	R303	1-216-174-00	METAL GLAZE	100 5% 1/8W
R102	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R304	1-216-174-00	METAL GLAZE	100 5% 1/8W
R103	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R305	1-216-035-00	METAL GLAZE	270 5% 1/10W
R105	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R306	1-216-035-00	METAL GLAZE	270 5% 1/10W
R108	1-216-230-00	METAL GLAZE	22K 5% 1/8W	R307	1-216-075-00	METAL GLAZE	12K 5% 1/10W
R115	1-216-210-00	METAL GLAZE	3.3K 5% 1/8W	R308	1-216-121-00	METAL GLAZE	1M 5% 1/10W
R201	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W	R309	1-216-001-00	METAL GLAZE	10 5% 1/10W
R202	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W	R310	1-216-001-00	METAL GLAZE	10 5% 1/10W
R203	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R311	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R204	1-216-091-00	METAL GLAZE	56K 5% 1/10W	R312	1-249-413-11	CARBON	470 5% 1/4W
R205	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R314	1-249-409-11	CARBON	220 5% 1/4W
R206	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R315	1-249-409-11	CARBON	220 5% 1/4W
R207	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R316	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R208	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R318	1-216-041-00	METAL GLAZE	470 5% 1/10W
R209	1-249-377-11	CARBON	0.47 5% 1/4W F	R319	1-249-413-11	CARBON	470 5% 1/4W
R210	1-247-734-11	CARBON	39 5% 1/2W	R322	1-216-041-00	METAL GLAZE	470 5% 1/10W
R211	1-247-734-11	CARBON	39 5% 1/2W	R331	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R212	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R333	1-216-182-00	METAL GLAZE	220 5% 1/8W
R213	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R334	1-216-182-00	METAL GLAZE	220 5% 1/8W
R214	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R336	1-216-178-00	METAL GLAZE	150 5% 1/8W
R215	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R337	1-216-041-00	METAL GLAZE	470 5% 1/10W
R216	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R338	1-216-037-00	METAL GLAZE	330 5% 1/10W
R217	1-216-045-00	METAL GLAZE	680 5% 1/10W	R339	1-216-025-00	METAL GLAZE	100 5% 1/10W
R218	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R340	1-216-025-00	METAL GLAZE	100 5% 1/10W
R221	1-212-849-00	FUSIBLE	4.7 5% 1/4W F	R341	1-216-025-00	METAL GLAZE	100 5% 1/10W
R222	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R342	1-216-033-00	METAL GLAZE	220 5% 1/10W
R223	1-216-045-00	METAL GLAZE	680 5% 1/10W	R343	1-216-022-00	METAL GLAZE	75 5% 1/10W
R224	1-249-433-11	CARBON	22K 5% 1/4W	R344	1-216-022-00	METAL GLAZE	75 5% 1/10W
R225	1-212-849-00	FUSIBLE	4.7 5% 1/4W F	R345	1-216-171-00	METAL GLAZE	75 5% 1/8W
R226	1-249-412-11	CARBON	390 5% 1/4W	R346	1-216-022-00	METAL GLAZE	75 5% 1/10W
R227	1-216-081-00	METAL GLAZE	22K 5% 1/10W				

A IF (KV-B2511A/B2511D)
B2511K/B2513E)

REF. NO.	PART NO.	DESCRIPTION				REMARK	REF. NO.	PART NO.	DESCRIPTION				REMARK	
R347	1-216-083-00	METAL GLAZE	27K	5%	1/10W		R684	1-216-047-00	METAL GLAZE	820	5%	1/10W		
R351	1-216-073-00	METAL GLAZE	10K	5%	1/10W		R685	1-216-049-00	METAL GLAZE	1K	5%	1/10W		
R352	1-216-033-00	METAL GLAZE	220	5%	1/10W				<TUNER>					
R354	1-216-033-00	METAL GLAZE	220	5%	1/10W		TU101	1-693-185-11	TUNER (UV916H) (KV-B2511A,B2511B,B2511D,B2511K,B2513E)					
R355	1-216-033-00	METAL GLAZE	220	5%	1/10W		1-693-184-11	TUNER (U944C) (KV-B2512U)						
R356	1-216-033-00	METAL GLAZE	220	5%	1/10W				<CRYSTAL>					
R357	1-216-041-00	METAL GLAZE	470	5%	1/10W		X301	1-567-504-11	OSCILLATOR, CRYSTAL					
R358	1-216-031-00	METAL GLAZE	180	5%	1/10W		X302	1-567-505-11	OSCILLATOR, CRYSTAL					
R359	1-216-033-00	METAL GLAZE	220	5%	1/10W				*****					
R360	1-216-033-00	METAL GLAZE	220	5%	1/10W				1-466-733-11 IF BLOCK (IFH-389) ***** (KV-B2511A,B2511D,B2511K,B2513E)					
R361	1-216-033-00	METAL GLAZE	220	5%	1/10W				<CAPACITOR>					
R362	1-216-077-00	METAL GLAZE	15K	5%	1/10W		C101	1-163-121-00	CERAMIC CHIP 150PF		5%	50V		
R367	1-216-212-00	METAL GLAZE	3.9K	5%	1/8W		C102	1-164-222-11	CERAMIC CHIP 0.22MF			25V		
R373	1-216-017-00	METAL GLAZE	47	5%	1/10W		C103	1-164-232-11	CERAMIC CHIP 0.01MF		10%	50V		
R376	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W		C104	1-164-232-11	CERAMIC CHIP 0.01MF		10%	50V		
R377	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W		C105	1-164-004-11	CERAMIC CHIP 0.1MF		10%	25V		
R378	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W		C106	1-124-477-11	ELECT 47MF		20%	16V		
R379	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W		C107	1-164-004-11	CERAMIC CHIP 0.1MF		10%	25V		
R380	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W		C108	1-164-004-11	CERAMIC CHIP 0.1MF		10%	25V		
R381	1-216-164-00	METAL GLAZE	39	5%	1/8W		C109	1-164-232-11	CERAMIC CHIP 0.01MF		10%	50V		
R382	1-216-164-00	METAL GLAZE	39	5%	1/8W		C112	1-164-004-11	CERAMIC CHIP 0.1MF		10%	25V		
R383	1-216-164-00	METAL GLAZE	39	5%	1/8W		C113	1-163-101-00	CERAMIC CHIP 22PF		5%	50V		
R401	1-216-171-00	METAL GLAZE	75	5%	1/8W		C114	1-124-477-11	ELECT 47MF		20%	16V		
R402	1-216-158-00	METAL GLAZE	22	5%	1/8W		C115	1-164-232-11	CERAMIC CHIP 0.01MF		10%	50V		
R403	1-216-025-00	METAL GLAZE	100	5%	1/10W		C116	1-164-346-11	CERAMIC CHIP 1MF		10%	16V		
R404	1-216-158-00	METAL GLAZE	22	5%	1/8W		C118	1-164-004-11	CERAMIC CHIP 0.1MF		10%	25V		
R405	1-216-025-00	METAL GLAZE	100	5%	1/10W		C119	1-163-369-11	CERAMIC CHIP 47PF		5%	50V		
R406	1-216-158-00	METAL GLAZE	22	5%	1/8W		C121	1-163-235-11	CERAMIC CHIP 22PF		5%	50V		
R407	1-216-025-00	METAL GLAZE	100	5%	1/10W		C122	1-163-239-11	CERAMIC CHIP 33PF		5%	50V		
R408	1-216-093-00	METAL GLAZE	68K	5%	1/10W		C123	1-163-235-11	CERAMIC CHIP 22PF		5%	50V		
R410	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W		C124	1-164-004-11	CERAMIC CHIP 0.1MF		10%	25V		
R411	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W		C130	1-216-295-00	METAL GLAZE 0		5%	1/10W		
R412	1-216-022-00	METAL GLAZE	75	5%	1/10W		C131	1-163-093-00	CERAMIC CHIP 10PF		5%	50V		
R413	1-216-022-00	METAL GLAZE	75	5%	1/10W		C133	1-124-477-11	ELECT 47MF		20%	16V		
R414	1-216-022-00	METAL GLAZE	75	5%	1/10W		C152	1-164-337-11	CERAMIC CHIP 2.2MF		16V			
R416	1-216-113-00	METAL GLAZE	470K	5%	1/10W		C153	1-164-337-11	CERAMIC CHIP 2.2MF		16V			
R417	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W		C154	1-164-337-11	CERAMIC CHIP 2.2MF		16V			
R419	1-216-113-00	METAL GLAZE	470K	5%	1/10W		C155	1-164-232-11	CERAMIC CHIP 0.01MF		10%	50V		
R420	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W		C156	1-124-477-11	ELECT 47MF		20%	16V		
R424	1-216-025-00	METAL GLAZE	100	5%	1/10W		C161	1-163-117-00	CERAMIC CHIP 100PF		5%	50V		
R425	1-216-025-00	METAL GLAZE	100	5%	1/10W		C162	1-164-222-11	CERAMIC CHIP 0.22MF		25V			
R428	1-249-393-11	CARBON	10	5%	1/4W	F	C163	1-164-346-11	CERAMIC CHIP 1MF		16V			
R574	1-216-041-00	METAL GLAZE	470	5%	1/10W		C164	1-163-141-00	CERAMIC CHIP 0.001MF		5%	50V		
R575	1-216-037-00	METAL GLAZE	330	5%	1/10W		C165	1-164-232-11	CERAMIC CHIP 0.01MF		10%	50V		
R581	1-216-033-00	METAL GLAZE	220	5%	1/10W		C166	1-124-477-11	ELECT 47MF		20%	16V		
R582	1-216-037-00	METAL GLAZE	330	5%	1/10W		C167	1-163-213-00	CERAMIC CHIP 0.0022MF		5%	50V		
R583	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W		C168	1-164-346-11	CERAMIC CHIP 1MF		16V			
R584	1-216-039-00	METAL GLAZE	390	5%	1/10W		C170	1-124-477-11	ELECT 47MF		20%	16V		
R586	1-216-047-00	METAL GLAZE	820	5%	1/10W		C171	1-124-477-11	ELECT 47MF		20%	16V		
R587	1-216-045-00	METAL GLAZE	680	5%	1/10W		C172	1-124-477-11	ELECT 47MF		20%	16V		
R588	1-216-101-00	METAL GLAZE	150K	5%	1/10W		C173	1-124-477-11	ELECT 47MF		20%	16V		
R589	1-216-073-00	METAL GLAZE	10K	5%	1/10W									
R590	1-216-049-00	METAL GLAZE	1K	5%	1/10W									
R591	1-216-073-00	METAL GLAZE	10K	5%	1/10W									
R592	1-216-232-00	METAL GLAZE	27K	5%	1/8W									
R593	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W									
R594	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W									
R595	1-216-643-11	METAL CHIP	470	0.50%	1/10W									
R596	1-216-670-11	METAL CHIP	6.2K	0.50%	1/10W									
R597	1-216-230-00	METAL GLAZE	22K	5%	1/8W									
R600	1-216-190-00	METAL GLAZE	470	5%	1/8W									
R616	1-216-035-00	METAL GLAZE	270	5%	1/10W									
R628	1-249-413-11	CARBON	470	5%	1/4W									
R681	1-216-397-11	METAL OXIDE	4.7	5%	3W	F								

**IF (KV-B2511A/B2511D
B2511K/B2513E)**

REF. NO.	PART NO.	DESCRIPTION			REMARK	REF. NO.	PART NO.	DESCRIPTION			REMARK
<FILTER>											
CF2	1-527-839-00	FILTER, CERAMIC				JR24	1-216-296-00	METAL GLAZE	0	5%	1/8W
CF3	1-527-840-00	FILTER, CERAMIC				JR25	1-216-296-00	METAL GLAZE	0	5%	1/8W
CF4	1-567-570-11	FILTER, CERAMIC				JR29	1-216-296-00	METAL GLAZE	0	5%	1/8W
SWF1	1-579-658-11	FILTER, SAWTOOTH WAVE				JR30	1-216-295-00	METAL GLAZE	0	5%	1/10W
						JR33	1-216-295-00	METAL GLAZE	0	5%	1/10W
						JR38	1-216-296-00	METAL GLAZE	0	5%	1/8W
<CONNECTOR>											
CN1	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P				JR39	1-216-296-00	METAL GLAZE	0	5%	1/8W
CN2	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P				JR40	1-216-296-00	METAL GLAZE	0	5%	1/8W
						R101	1-216-075-00	METAL GLAZE	12K	5%	1/10W
						R102	1-216-073-00	METAL GLAZE	10K	5%	1/10W
						R103	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
<TRIMMER>											
CT1	1-404-801-11	TRAP, CERAMIC				R104	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
						R106	1-216-049-00	METAL GLAZE	1K	5%	1/10W
						R107	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
						R108	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
						R110	1-216-041-00	METAL GLAZE	470	5%	1/10W
<DIODE>											
D161	8-719-400-18	DIODE MA152WK				R113	1-216-031-00	METAL GLAZE	180	5%	1/10W
						R114	1-216-049-00	METAL GLAZE	1K	5%	1/10W
						R115	1-216-027-00	METAL GLAZE	120	5%	1/10W
						R116	1-216-101-00	METAL GLAZE	150K	5%	1/10W
						R117	1-216-097-00	METAL GLAZE	100K	5%	1/10W
<IC>											
IC1	8-759-070-76	IC M52308SP				R118	1-216-117-00	METAL GLAZE	680K	5%	1/10W
IC2	8-759-070-71	IC TDA9820				R119	1-216-240-00	METAL GLAZE	56K	5%	1/8W
IC3	8-759-514-54	IC BA7046				R120	1-216-075-00	METAL GLAZE	12K	5%	1/10W
						R121	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
						R122	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
<COIL>											
L101	1-408-421-00	INDUCTOR	100UH			R123	1-216-075-00	METAL GLAZE	12K	5%	1/10W
L102	1-408-419-00	INDUCTOR	68UH			R124	1-216-041-00	METAL GLAZE	470	5%	1/10W
L103	1-408-419-00	INDUCTOR	68UH			R125	1-216-041-00	METAL GLAZE	470	5%	1/10W
L104	1-408-408-00	INDUCTOR	8.2UH			R127	1-216-047-00	METAL GLAZE	820	5%	1/10W
L121	1-408-413-00	INDUCTOR	22UH			R130	1-216-049-00	METAL GLAZE	1K	5%	1/10W
L122	1-408-420-00	INDUCTOR	82UH			R131	1-216-025-00	METAL GLAZE	100	5%	1/10W
L142	1-410-790-41	INDUCTOR	0.56UH			R132	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
L151	1-408-419-00	INDUCTOR	68UH			R133	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
L161	1-408-419-00	INDUCTOR	68UH			R134	1-216-049-00	METAL GLAZE	1K	5%	1/10W
						R135	1-216-198-00	METAL GLAZE	1K	5%	1/8W
<TRANSISTOR>											
Q101	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R				R150	1-216-043-00	METAL GLAZE	560	5%	1/10W
Q102	8-729-216-22	TRANSISTOR 2SA1162-G				R151	1-216-043-00	METAL GLAZE	560	5%	1/10W
Q121	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R				R152	1-216-043-00	METAL GLAZE	560	5%	1/10W
Q122	8-729-216-22	TRANSISTOR 2SA1162-G				R153	1-216-025-00	METAL GLAZE	100	5%	1/10W
Q161	8-729-216-22	TRANSISTOR 2SA1162-G				R154	1-216-049-00	METAL GLAZE	1K	5%	1/10W
Q170	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R				R155	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
Q171	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R				R156	1-216-083-00	METAL GLAZE	27K	5%	1/10W
Q172	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R				R157	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
Q173	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R				R159	1-216-107-00	METAL GLAZE	270K	5%	1/10W
						R160	1-216-049-00	METAL GLAZE	1K	5%	1/10W
<RESISTOR>											
JR2	1-216-295-00	METAL GLAZE	0	5%	1/10W	R161	1-218-755-11	METAL CHIP	130K	0.50%	1/10W
JR3	1-216-296-00	METAL GLAZE	0	5%	1/8W	R162	1-216-073-00	METAL GLAZE	10K	5%	1/10W
JR4	1-216-295-00	METAL GLAZE	0	5%	1/10W	R163	1-216-113-00	METAL GLAZE	470K	5%	1/10W
JR7	1-216-295-00	METAL GLAZE	0	5%	1/10W	R164	1-216-113-00	METAL GLAZE	470K	5%	1/10W
JR8	1-216-295-00	METAL GLAZE	0	5%	1/10W	R165	1-216-081-00	METAL GLAZE	22K	5%	1/10W
JR9	1-216-296-00	METAL GLAZE	0	5%	1/8W	R166	1-216-049-00	METAL GLAZE	1K	5%	1/10W
JR11	1-216-296-00	METAL GLAZE	0	5%	1/8W	R167	1-216-073-00	METAL GLAZE	10K	5%	1/10W
JR14	1-216-296-00	METAL GLAZE	0	5%	1/8W	R168	1-216-113-00	METAL GLAZE	470K	5%	1/10W
JR16	1-216-295-00	METAL GLAZE	0	5%	1/10W	R169	1-216-049-00	METAL GLAZE	1K	5%	1/10W
JR18	1-216-295-00	METAL GLAZE	0	5%	1/10W	R170	1-216-083-00	METAL GLAZE	27K	5%	1/10W
JR19	1-216-296-00	METAL GLAZE	0	5%	1/8W	R171	1-216-075-00	METAL GLAZE	12K	5%	1/10W
JR20	1-216-296-00	METAL GLAZE	0	5%	1/8W	R172	1-216-095-00	METAL GLAZE	82K	5%	1/10W
JR21	1-216-296-00	METAL GLAZE	0	5%	1/8W	R173	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
JR23	1-216-296-00	METAL GLAZE	0	5%	1/8W	R174	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
						R175	1-216-083-00	METAL GLAZE	27K	5%	1/10W
						R176	1-216-075-00	METAL GLAZE	12K	5%	1/10W
						R177	1-216-095-00	METAL GLAZE	82K	5%	1/10W

**IF(KV-B2511A/B2511D)
B2511K/B2513E)**

IF (KV-B2511B)

IF (KV-B2511B)

IF (KV-B2512U)

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK		
Q8	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R74	1-216-079-00	METAL GLAZE	18K 5% 1/10W		
Q10	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R75	1-216-079-00	METAL GLAZE	18K 5% 1/10W		
Q11	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R76	1-216-025-00	METAL GLAZE	100 5% 1/10W		
Q12	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R77	1-216-174-00	METAL GLAZE	100 5% 1/8W		
Q13	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R81	1-216-095-00	METAL GLAZE	82K 5% 1/10W		
Q14	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R82	1-216-121-00	METAL GLAZE	1M 5% 1/10W		
Q15	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R83	1-216-025-00	METAL GLAZE	100 5% 1/10W		
Q16	8-729-216-22	TRANSISTOR 2SA1162-G		R84	1-216-085-00	METAL GLAZE	33K 5% 1/10W		
Q101	8-729-104-80	TRANSISTOR 2SC3355		R85	1-216-085-00	METAL GLAZE	33K 5% 1/10W		
Q121	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R86	1-216-689-11	METAL GLAZE	39K 5% 1/10W		
<RESISTOR>									
JR2	1-216-295-00	METAL GLAZE	0 5% 1/10W	R87	1-216-095-00	METAL GLAZE	82K 5% 1/10W		
JR3	1-216-296-00	METAL GLAZE	0 5% 1/8W	R88	1-216-095-00	METAL GLAZE	82K 5% 1/10W		
JR5	1-216-296-00	METAL GLAZE	0 5% 1/8W	R89	1-216-095-00	METAL GLAZE	82K 5% 1/10W		
R1	1-216-025-00	METAL GLAZE	100 5% 1/10W	R90	1-216-075-00	METAL GLAZE	12K 5% 1/10W		
R2	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R91	1-216-295-00	METAL GLAZE	0 5% 1/10W		
R3	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R92	1-216-075-00	METAL GLAZE	12K 5% 1/10W		
R4	1-216-041-00	METAL GLAZE	470 5% 1/10W	R93	1-216-075-00	METAL GLAZE	12K 5% 1/10W		
R5	1-216-021-00	METAL GLAZE	68 5% 1/10W	R94	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W		
R6	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W	R95	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W		
R8	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R96	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W		
R9	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W	R97	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W		
R10	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R98	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W		
R11	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R99	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W		
R24	1-216-280-00	METAL GLAZE	2.7M 5% 1/8W	R100	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W		
R25	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R102	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W		
R26	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R103	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W		
R27	1-216-266-00	METAL GLAZE	680K 5% 1/8W	R104	1-216-049-00	METAL GLAZE	1K 5% 1/10W		
R28	1-216-075-00	METAL GLAZE	12K 5% 1/10W	R105	1-216-033-00	METAL GLAZE	220 5% 1/10W		
R29	1-216-035-00	METAL GLAZE	270 5% 1/10W	R121	1-216-073-00	METAL GLAZE	10K 5% 1/10W		
R30	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R122	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W		
R31	1-216-017-00	METAL GLAZE	47 5% 1/10W	R123	1-216-041-00	METAL GLAZE	470 5% 1/10W		
R32	1-216-043-00	METAL GLAZE	560 5% 1/10W	R124	1-216-041-00	METAL GLAZE	470 5% 1/10W		
R33	1-216-037-00	METAL GLAZE	330 5% 1/10W	R125	1-216-041-00	METAL GLAZE	470 5% 1/10W		
R34	1-216-252-00	METAL GLAZE	180K 5% 1/8W	R301	1-216-049-00	METAL GLAZE	1K 5% 1/10W		
R35	1-216-035-00	METAL GLAZE	270 5% 1/10W	R302	1-216-049-00	METAL GLAZE	1K 5% 1/10W		
R36	1-216-029-00	METAL GLAZE	150 5% 1/10W	R303	1-216-049-00	METAL GLAZE	1K 5% 1/10W		
R37	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R304	1-216-037-00	METAL GLAZE	330 5% 1/10W		
R38	1-216-099-00	METAL GLAZE	120K 5% 1/10W	R305	1-216-049-00	METAL GLAZE	1K 5% 1/10W		
R39	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R306	1-216-025-00	METAL GLAZE	100 5% 1/10W		
R40	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R307	1-216-037-00	METAL GLAZE	330 5% 1/10W		
R40	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R308	1-216-037-00	METAL GLAZE	330 5% 1/10W		
R42	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	<VARIABLE RESISTOR>					
R43	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	RV2	1-241-120-11	RES, ADJ, CARBON 2.2K			
R44	1-216-027-00	METAL GLAZE	120 5% 1/10W	<TRANSFORMER>					
R45	1-216-041-00	METAL GLAZE	470 5% 1/10W	T1	1-404-806-21	COIL			
R46	1-216-031-00	METAL GLAZE	180 5% 1/10W	T3	1-416-012-11	COIL			
R47	1-216-075-00	METAL GLAZE	12K 5% 1/10W	T4	1-416-012-11	COIL			
R48	1-216-081-00	METAL GLAZE	22K 5% 1/10W	T5	1-402-720-11	COIL			
R49	1-216-049-00	METAL GLAZE	1K 5% 1/10W	<CRYSTAL>					
R53	1-216-082-00	METAL GLAZE	24K 5% 1/10W	X1	1-579-648-21	VIBRATOR, CERAMIC			
R54	1-216-043-00	METAL GLAZE	560 5% 1/10W	*****					
R55	1-216-043-00	METAL GLAZE	560 5% 1/10W	1-466-734-11 IF BLOCK (IFH-395) (KV-B212U)					
R56	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	*****					
R57	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	<CAPACITOR>					
R58	1-216-041-00	METAL GLAZE	470 5% 1/10W	C101	1-163-239-11	CERAMIC CHIP 33PF			
R59	1-216-043-00	METAL GLAZE	560 5% 1/10W						
R60	1-216-043-00	METAL GLAZE	560 5% 1/10W						
R61	1-216-295-00	METAL GLAZE	0 5% 1/10W						
R63	1-216-043-00	METAL GLAZE	560 5% 1/10W						
R71	1-216-079-00	METAL GLAZE	18K 5% 1/10W						
R72	1-216-079-00	METAL GLAZE	18K 5% 1/10W						
R73	1-216-049-00	METAL GLAZE	1K 5% 1/10W						

IF (KV-B2512U)

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<TRANSISTOR>							
C102	1-164-222-11	CERAMIC CHIP 0.22MF	25V	Q101	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R	
C103	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q102	8-729-216-22	TRANSISTOR 2SA1162-G	
C104	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q122	8-729-216-22	TRANSISTOR 2SA1162-G	
C105	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	Q161	8-729-216-22	TRANSISTOR 2SA1162-G	
C106	1-124-477-11	ELECT 47MF	20% 16V	Q172	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R	
C107	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	Q173	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R	
C108	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C109	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V				
C112	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
<RESISTOR>							
C113	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	JR1	1-216-296-00	METAL GLAZE 0	5% 1/8W
C114	1-124-477-11	ELECT 47MF	20% 16V	JR2	1-216-295-00	METAL GLAZE 0	5% 1/10W
C115	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	JR3	1-216-296-00	METAL GLAZE 0	5% 1/8W
C116	1-164-346-11	CERAMIC CHIP 1MF	16V	JR4	1-216-295-00	METAL GLAZE 0	5% 1/10W
C118	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	JR7	1-216-295-00	METAL GLAZE 0	5% 1/10W
C119	1-163-369-11	CERAMIC CHIP 47PF	5% 50V	JR8	1-216-295-00	METAL GLAZE 0	5% 1/10W
C122	1-163-093-00	CERAMIC CHIP 10PF	5% 50V	JR9	1-216-296-00	METAL GLAZE 0	5% 1/8W
C130	1-216-295-00	METAL GLAZE 0	5% 1/10W	JR10	1-216-296-00	METAL GLAZE 0	5% 1/8W
C131	1-163-224-11	CERAMIC CHIP 7PF	0.25PF 50V	JR11	1-216-296-00	METAL GLAZE 0	5% 1/8W
C133	1-124-477-11	ELECT 47MF	20% 16V	JR12	1-216-295-00	METAL GLAZE 0	5% 1/10W
C161	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	JR13	1-163-093-00	CERAMIC CHIP 10PF	5% 50V
C162	1-164-222-11	CERAMIC CHIP 0.22MF	25V	JR14	1-216-296-00	METAL GLAZE 0	5% 1/8W
C163	1-164-346-11	CERAMIC CHIP 1MF	16V	JR16	1-216-295-00	METAL GLAZE 0	5% 1/10W
C164	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	JR18	1-216-295-00	METAL GLAZE 0	5% 1/10W
C165	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	JR19	1-216-296-00	METAL GLAZE 0	5% 1/8W
C166	1-124-477-11	ELECT 47MF	20% 16V	JR20	1-216-296-00	METAL GLAZE 0	5% 1/8W
C167	1-163-213-00	CERAMIC CHIP 0.0022MF	5% 50V	JR21	1-216-296-00	METAL GLAZE 0	5% 1/8W
C168	1-164-346-11	CERAMIC CHIP 1MF	16V	JR23	1-216-296-00	METAL GLAZE 0	5% 1/8W
C170	1-124-477-11	ELECT 47MF	20% 16V	JR24	1-216-296-00	METAL GLAZE 0	5% 1/8W
C171	1-124-477-11	ELECT 47MF	20% 16V	JR25	1-216-296-00	METAL GLAZE 0	5% 1/8W
<FILTER>							
CD1	1-579-657-21	DISCRIMINATOR, CERAMIC		JR29	1-216-296-00	METAL GLAZE 0	5% 1/8W
CF1	1-567-569-11	FILTER, CERAMIC		JR30	1-216-295-00	METAL GLAZE 0	5% 1/10W
SWF1	1-579-659-11	FILTER, SAWTOOTH WAVE		JR33	1-216-295-00	METAL GLAZE 0	5% 1/10W
				JR38	1-216-296-00	METAL GLAZE 0	5% 1/8W
				JR39	1-216-296-00	METAL GLAZE 0	5% 1/8W
<CONNECTOR>							
CN1	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P		JR40	1-216-296-00	METAL GLAZE 0	5% 1/8W
CN2	1-750-173-11	PIN, CONNECTOR (PC BOARD) 10P		JR41	1-216-295-00	METAL GLAZE 0	5% 1/10W
				JR42	1-216-295-00	METAL GLAZE 0	5% 1/10W
				JR101	1-216-295-00	METAL GLAZE 0	5% 1/10W
				R101	1-216-075-00	METAL GLAZE 12K	5% 1/10W
<TRIMMER>							
CT1	1-409-333-00	TRAP, CERAMIC (6.0MHZ)		R102	1-216-045-00	METAL GLAZE 680	5% 1/10W
				R103	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
				R104	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W
				R105	1-216-043-00	METAL GLAZE 560	5% 1/10W
				R106	1-216-049-00	METAL GLAZE 1K	5% 1/10W
<DIODE>							
D161	8-719-400-18	DIODE MA152WK		R107	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
				R108	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
				R110	1-216-041-00	METAL GLAZE 470	5% 1/10W
				R112	1-216-045-00	METAL GLAZE 680	5% 1/10W
				R113	1-216-031-00	METAL GLAZE 180	5% 1/10W
<IC>							
IC1	8-759-070-76	IC M52308SP		R114	1-216-049-00	METAL GLAZE 1K	5% 1/10W
IC3	8-759-514-54	IC BA7046		R115	1-216-031-00	METAL GLAZE 180	5% 1/10W
				R116	1-216-101-00	METAL GLAZE 150K	5% 1/10W
				R117	1-216-097-00	METAL GLAZE 100K	5% 1/10W
				R118	1-216-117-00	METAL GLAZE 680K	5% 1/10W
<COIL>							
L101	1-408-414-00	INDUCTOR	27UH	R119	1-216-240-00	METAL GLAZE 56K	5% 1/8W
L102	1-408-419-00	INDUCTOR	68UH	R120	1-216-075-00	METAL GLAZE 12K	5% 1/10W
L103	1-408-419-00	INDUCTOR	68UH	R121	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W
L104	1-408-406-00	INDUCTOR	5.6UH	R122	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
L105	1-408-410-00	INDUCTOR	12UH	R123	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
L142	1-410-790-41	INDUCTOR	0.56UH				
L161	1-408-419-00	INDUCTOR	68UH	R130	1-216-049-00	METAL GLAZE 1K	5% 1/10W

IF (KV-B2512U)

M

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
R131	1-216-025-00	METAL GLAZE	100 5%	1/10W	C511	1-106-375-12	MYLAR	0.022MF 10%	250V		
R132	1-216-069-00	METAL GLAZE	6.8K 5%	1/10W	C512	1-126-103-11	ELECT	470MF 20%	16V		
R133	1-216-061-00	METAL GLAZE	3.3K 5%	1/10W	C513	1-163-209-00	CERAMIC CHIP	0.0015MF 5%	50V		
R134	1-216-049-00	METAL GLAZE	1K 5%	1/10W	C514	1-163-105-00	CERAMIC CHIP	33PF 5%	50V		
R135	1-216-198-00	METAL GLAZE	1K 5%	1/8W	C519	1-164-161-11	CERAMIC CHIP	0.0022MF 10%	50V		
R153	1-216-025-00	METAL GLAZE	100 5%	1/10W	C522	1-163-141-00	CERAMIC CHIP	0.001MF 5%	50V		
R159	1-216-107-00	METAL GLAZE	270K 5%	1/10W	C523	1-163-141-00	CERAMIC CHIP	0.001MF 5%	50V		
R160	1-216-049-00	METAL GLAZE	1K 5%	1/10W	C531	1-164-493-11	CERAMIC CHIP	0.047MF 10%	50V		
R161	1-218-755-11	METAL CHIP	130K 0.50%	1/10W	C532	1-164-489-11	CERAMIC CHIP	0.22MF 10%	16V		
R162	1-216-073-00	METAL GLAZE	10K 5%	1/10W	C538	1-164-489-11	CERAMIC CHIP	0.22MF 10%	16V		
R163	1-216-113-00	METAL GLAZE	470K 5%	1/10W	C541	1-164-232-11	CERAMIC CHIP	0.01MF 10%	50V		
R164	1-216-113-00	METAL GLAZE	470K 5%	1/10W	C542	1-163-037-11	CERAMIC CHIP	0.022MF 10%	25V		
R165	1-216-081-00	METAL GLAZE	22K 5%	1/10W	C543	1-164-161-11	CERAMIC CHIP	0.0022MF 10%	50V		
R166	1-216-049-00	METAL GLAZE	1K 5%	1/10W	C544	1-164-161-11	CERAMIC CHIP	0.0022MF 10%	50V		
R167	1-216-073-00	METAL GLAZE	10K 5%	1/10W	C546	1-164-004-11	CERAMIC CHIP	0.1MF 10%	25V		
R168	1-216-113-00	METAL GLAZE	470K 5%	1/10W	C547	1-163-020-00	CERAMIC CHIP	0.0082MF 10%	50V		
R169	1-216-049-00	METAL GLAZE	1K 5%	1/10W	C549	1-163-989-11	CERAMIC CHIP	0.033MF 10%	25V		
R175	1-216-083-00	METAL GLAZE	27K 5%	1/10W	C550	1-163-141-00	CERAMIC CHIP	0.001MF 5%	50V		
R176	1-216-075-00	METAL GLAZE	12K 5%	1/10W	C552	1-163-037-11	CERAMIC CHIP	0.022MF 10%	25V		
R177	1-216-095-00	METAL GLAZE	82K 5%	1/10W	C559	1-164-004-11	CERAMIC CHIP	0.1MF 10%	25V		
R178	1-216-059-00	METAL GLAZE	2.7K 5%	1/10W	C560	1-164-161-11	CERAMIC CHIP	0.0022MF 10%	50V		
R179	1-216-057-00	METAL GLAZE	2.2K 5%	1/10W	C562	1-216-295-00	METAL GLAZE	0 5% 1/10W			
R181	1-216-037-00	METAL GLAZE	330 5%	1/10W	C563	1-163-031-11	CERAMIC CHIP	0.01MF 50V			
				C564	1-163-031-11	CERAMIC CHIP	0.01MF 50V				
				C565	1-163-031-11	CERAMIC CHIP	0.01MF 50V				
<VARIABLE RESISTOR>											
RV1	1-241-121-11	RES, ADJ, CARBON 4.7K		C566	1-163-031-11	CERAMIC CHIP	0.01MF 50V				
				C567	1-163-009-11	CERAMIC CHIP	0.001MF 10%	50V			
				C568	1-163-009-11	CERAMIC CHIP	0.001MF 10%	50V			
				C569	1-164-161-11	CERAMIC CHIP	0.0022MF 10%	50V			
				C570	1-162-568-11	CERAMIC CHIP	0.33MF 10%	16V			
<TRANSFORMER>											
T4	1-416-017-21	COIL		<FILTER>							
T5	1-416-018-21	COIL		CD001 1-577-364-11 VIBRATOR, CERAMIC							
*****								<CONNECTOR>			
*A-1635-001-A M BOARD, COMPLETE								CN1406*1-568-880-51	PIN, CONNECTOR 5P		
*****								CN1413 1-695-301-11	CONNECTOR, BOARD TO BOARD 4P		
<CAPACITOR>								CN1426*1-568-881-51	PIN, CONNECTOR 6P		
C001	1-163-117-00	CERAMIC CHIP	100PF	5%	50V			CN1432*1-568-882-51	PIN, CONNECTOR 7P		
C003	1-163-117-00	CERAMIC CHIP	100PF	5%	50V			CN1441*1-564-511-11	PLUG, CONNECTOR 8P		
C007	1-163-117-00	CERAMIC CHIP	100PF	5%	50V			<DIODE>			
C008	1-163-117-00	CERAMIC CHIP	100PF	5%	50V			D001	8-719-027-82	DIODE MA3039H-TX	
C010	1-163-117-00	CERAMIC CHIP	100PF	5%	50V			D501	8-719-800-76	DIODE 1SS226	
C011	1-163-117-00	CERAMIC CHIP	100PF	5%	50V			D503	8-719-401-31	DIODE MA3047L-TX	
C012	1-163-117-00	CERAMIC CHIP	100PF	5%	50V			D504	8-719-400-18	DIODE MA152WK	
C014	1-163-117-00	CERAMIC CHIP	100PF	5%	50V			D510	8-719-105-91	DIODE RD5.6M-B2	
C016	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V			<IC>			
C018	1-164-505-11	CERAMIC CHIP	2.2MF		16V			IC001	8-759-072-93	IC SDA30C162	
C019	1-124-477-11	ELECT	47MF	20%	16V			IC003	*1-540-123-11	SOCKET, IC 68P; IC001	
C032	1-163-117-00	CERAMIC CHIP	100PF	5%	50V			IC501	8-759-160-87	IC M27C512-20B1-AE27	
C035	1-163-037-11	CERAMIC CHIP	0.022MF	10%	25V			IC561	8-759-513-48	IC TDA2595/V9	
C036	1-164-005-11	CERAMIC CHIP	0.47MF		25V			IC562	8-759-998-98	IC LM358D	
C037	1-163-117-00	CERAMIC CHIP	100PF	5%	50V			IC563	8-759-081-30	IC MC78L05ACPRP	
C501	1-163-020-00	CERAMIC CHIP	0.0082MF	10%	50V			<COIL>			
C502	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V			L001	1-408-421-00	INDUCTOR 100UH	
C503	1-137-367-11	FILM	0.0033MF	5%	50V						
C504	1-130-831-21	MYLAR	0.56MF	10%	63V						
C505	1-124-925-11	ELECT	2.2MF	20%	50V						
C506	1-162-568-11	CERAMIC CHIP	0.33MF	10%	16V						
C507	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V						
C508	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V						
C509	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V						
C510	1-124-925-11	ELECT	2.2MF	20%	50V						



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
L501	1-410-119-11	INDUCTOR	1MMH	R507	1-216-097-00	METAL GLAZE	100K 5% 1/10W
L561	1-408-409-00	INDUCTOR	10UH	R509	1-216-039-00	METAL GLAZE	390 5% 1/10W
L562	1-408-409-00	INDUCTOR	10UH	R510	1-216-073-00	METAL GLAZE	10K 5% 1/10W
L563	1-408-947-00	INDUCTOR	2.2MMH	R511	1-216-097-00	METAL GLAZE	100K 5% 1/10W
<TRANSISTOR>				R512	1-216-049-00	METAL GLAZE	1K 5% 1/10W
<TRANSISTOR>				R513	1-216-230-00	METAL GLAZE	22K 5% 1/8W
<TRANSISTOR>				R514	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
Q002	8-729-216-22	TRANSISTOR	2SA1162-G	R515	1-216-049-00	METAL GLAZE	1K 5% 1/10W
Q003	8-729-901-81	TRANSISTOR	2SC2412K-T-146-R	R516	1-216-039-00	METAL GLAZE	390 5% 1/10W
Q501	8-729-901-01	TRANSISTOR	DTC144EK	R517	1-216-039-00	METAL GLAZE	390 5% 1/10W
Q502	8-729-901-81	TRANSISTOR	2SC2412K-T-146-R	R518	1-216-075-00	METAL GLAZE	12K 5% 1/10W
Q503	8-729-901-01	TRANSISTOR	DTC144EK	R519	1-216-033-00	METAL GLAZE	220 5% 1/10W
Q508	8-729-901-01	TRANSISTOR	DTC144EK	R520	1-216-093-00	METAL GLAZE	68K 5% 1/10W
Q509	8-729-901-81	TRANSISTOR	2SC2412K-T-146-R	R521	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
Q564	8-729-216-22	TRANSISTOR	2SA1162-G	R522	1-216-085-00	METAL GLAZE	33K 5% 1/10W
Q565	8-729-901-81	TRANSISTOR	2SC2412K-T-146-R	R523	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
Q566	8-729-901-81	TRANSISTOR	2SC2412K-T-146-R	R524	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W
Q567	8-729-901-01	TRANSISTOR	DTC144EK	R525	1-216-093-00	METAL GLAZE	68K 5% 1/10W
<RESISTOR>				R526	1-216-073-00	METAL GLAZE	10K 5% 1/10W
<RESISTOR>				R527	1-216-689-11	METAL GLAZE	39K 5% 1/10W
<RESISTOR>				R528	1-216-049-00	METAL GLAZE	1K 5% 1/10W
JR002	1-216-295-00	METAL GLAZE	0 5% 1/10W	R529	1-216-696-11	METAL CHIP	75K 0.50% 1/10W
R001	1-216-025-00	METAL GLAZE	100 5% 1/10W	R531	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R002	1-216-025-00	METAL GLAZE	100 5% 1/10W	R532	1-249-427-11	METAL	6.8K 5% 1/4W
R003	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R533	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R006	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R535	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R007	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R536	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R008	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R538	1-216-025-00	METAL GLAZE	100 5% 1/10W
R010	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R539	1-216-657-11	METAL CHIP	1.8K 0.50% 1/10W
R011	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R540	1-216-295-00	METAL GLAZE	0 5% 1/10W
R012	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R541	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R014	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R542	1-216-025-00	METAL GLAZE	100 5% 1/10W
R015	1-216-296-00	METAL GLAZE	0 5% 1/8W	R544	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R016	1-216-045-00	METAL GLAZE	680 5% 1/10W	R545	1-216-033-00	METAL GLAZE	220 5% 1/10W
R017	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R546	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R018	1-216-041-00	METAL GLAZE	470 5% 1/10W	R547	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R020	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R551	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R021	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R552	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R025	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R553	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R026	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R559	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R028	1-216-075-00	METAL GLAZE	12K 5% 1/10W	R560	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R030	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R564	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R032	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R565	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R033	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R566	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R034	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R567	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R035	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R568	1-216-109-00	METAL GLAZE	330K 5% 1/10W
R038	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R570	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R049	1-216-049-00	METAL GLAZE	1K 5% 1/10W	<VARIABLE RESISTOR>			
R050	1-216-073-00	METAL GLAZE	10K 5% 1/10W	RV506	1-241-766-11	RES, ADJ, CERMET 47K	
R051	1-216-081-00	METAL GLAZE	22K 5% 1/10W	*****			
R052	1-216-073-00	METAL GLAZE	10K 5% 1/10W	*A-1638-030-A C BOARD, COMPLETE			
R053	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	*****			
R054	1-216-081-00	METAL GLAZE	22K 5% 1/10W	<CAPACITOR>			
R055	1-216-081-00	METAL GLAZE	22K 5% 1/10W	C701	1-162-114-00	CERAMIC	0.0047MF
R067	1-216-043-00	METAL GLAZE	560 5% 1/10W	C703	1-123-946-00	ELECT	4.7MF
R068	1-216-043-00	METAL GLAZE	560 5% 1/10W	C704	1-130-202-00	FILM	0.022MF
R069	1-216-037-00	METAL GLAZE	330 5% 1/10W	C705	1-162-116-00	CERAMIC	680PF
R070	1-216-037-00	METAL GLAZE	330 5% 1/10W	C708	1-163-197-00	CERAMIC CHIP	470PF
R501	1-216-047-00	METAL GLAZE	820 5% 1/10W				
R502	1-216-097-00	METAL GLAZE	100K 5% 1/10W				
R503	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W				
R504	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W				
R505	1-216-075-00	METAL GLAZE	12K 5% 1/10W				
R506	1-216-049-00	METAL GLAZE	1K 5% 1/10W				

The components identified by shading and mark  are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque A sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

C D

D

Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by shading and mark  are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK	REF.NO.	PART NO.	DESCRIPTION			REMARK
C613	1-129-722-00	FILM	0.047MF	10%	630V	C870	1-137-364-11	FILM	0.001MF	5%	50V
C614	1-102-030-00	CERAMIC	330PF	10%	500V	C871	1-130-651-00	FILM	0.001MF	2%	100V
C615	1-126-943-11	ELECT	2200MF	20%	25V	C872	1-124-907-11	ELECT	10MF	20%	50V
C616	1-102-030-00	CERAMIC	330PF	10%	500V	C873	1-137-364-11	FILM	0.001MF	5%	50V
C617	1-162-116-00	CERAMIC	680PF	10%	2KV	C875	1-102-038-00	CERAMIC	0.001MF	500V	
C618	1-162-134-11	CERAMIC	470PF	10%	2KV	C877	1-124-902-00	ELECT	0.47MF	20%	50V
C619	1-102-030-00	CERAMIC	330PF	10%	500V	C878	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C620	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V	C879	1-102-228-00	CERAMIC	470PF	10%	500V
C621	1-124-347-00	ELECT	100MF	20%	160V	C1501	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C622	1-128-320-11	ELECT	2200MF	20%	16V	C1502	1-124-903-11	ELECT	1MF	20%	50V
C623	1-102-030-00	CERAMIC	330PF	10%	500V	C1503	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C624	1-126-800-51	ELECT	2200MF	20%	35V	C1504	1-124-480-11	ELECT	470MF	20%	25V
C625	1-126-800-51	ELECT	2200MF	20%	35V	C1505	1-124-911-11	ELECT	220MF	20%	50V
C627	1-137-365-11	FILM	0.0015MF	5%	50V	C1506	1-136-202-11	FILM	0.33MF	5%	63V
C628	1-124-910-11	ELECT	47MF	20%	50V	C1507	1-106-228-00	MYLAR	0.22MF	10%	100V
C629	1-124-907-11	ELECT	10MF	20%	50V	C1508	1-124-480-11	ELECT	470MF	20%	25V
C631	1-163-075-00	CERAMIC CHIP	0.047MF	10%	25V	C1509	1-124-767-00	ELECT	2.2MF	20%	50V
C632	1-137-372-11	FILM	0.022MF	5%	50V	C1511	1-124-907-11	ELECT	10MF	20%	50V
C633	1-163-078-11	CERAMIC CHIP	0.033MF	10%	25V	C1512	1-124-006-11	ELECT	10MF	20%	25V
C636	1-130-777-00	FILM	0.1MF	5%	63V	C1514	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C640	1-124-916-11	ELECT	22MF	20%	50V	C1515	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C801	1-137-116-11	FILM	1MF	5%	200V	<CONNECTOR>					
C803	1-164-695-11	CERAMIC CHIP	0.0022MF	5%	50V	CN0004*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P				
C804	1-106-383-00	MYLAR	0.047MF	10%	100V	CN0009 1-568-878-51	PIN, CONNECTOR 3P				
C805	1-124-902-00	ELECT	0.47MF	20%	50V	CN0504*1-568-882-51	PIN, CONNECTOR 7P				
C806	1-124-907-11	ELECT	10MF	20%	50V	CN0505*1-568-880-51	PIN, CONNECTOR 5P				
C808	1-162-114-00	CERAMIC	0.0047MF	5%	2KV	CN0506*1-568-880-51	PIN, CONNECTOR 5P				
C809	1-124-808-51	ELECT	10MF	20%	200V	CN0519*1-568-878-51	PIN, CONNECTOR 3P				
C810	1-163-001-11	CERAMIC CHIP	220PF	10%	50V	CN0521*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				
C812	1-162-318-11	CERAMIC	0.001MF	10%	500V	CN0524*1-568-878-51	PIN, CONNECTOR 3P				
C813	1-110-364-11	MYLAR	0.1MF	10%	200V	CN0525*1-695-294-11	PIN, CONNECTOR (PC BOARD) 6P				
C815	1-162-117-00	CERAMIC	100PF	10%	500V	CN0526*1-568-881-51	PIN, CONNECTOR 6P				
C819	1-126-103-11	ELECT	470MF	20%	16V	CN0529*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P				
C821	△1-136-897-11	FILM	0.021MF	3%	2KV	CN5521*1-568-878-51	PIN, CONNECTOR 3P				
C822	△1-162-116-91	CERAMIC	680PF	10%	2KV	DY1 *1-580-798-11	CONNECTOR PIN (DY) 6P				
C823	1-124-902-00	ELECT	0.47MF	20%	50V	<DIODE>					
C824	1-137-368-11	FILM	0.0047MF	5%	50V	C825	△1-162-116-91	CERAMIC	680PF	10%	2KV
C826	△1-136-895-51	FILM	0.068MF	5%	630V	C827	1-106-383-00	MYLAR	0.047MF	10%	100V
C828	1-136-557-11	FILM	0.0033MF	10%	400V	D602	8-719-300-33	DIODE RU-3AM			
C831	1-123-932-00	ELECT	4.7MF	20%	160V	D606	8-719-300-33	DIODE RU-3AM			
C832	1-124-910-11	ELECT	47MF	20%	50V	D608	8-719-300-33	DIODE RU-3AM			
C833	1-136-828-11	FILM	1.8MF	5%	200V	D610	1-806-660-11	DIODE ESAB85-009			
C834	1-137-513-11	FILM	0.62MF	5%	200V	D611	8-719-029-04	DIODE D5L60			
C835	1-124-480-11	ELECT	470MF	20%	25V	D612	8-719-510-09	DIODE D10SC6M			
C836	1-102-228-00	CERAMIC	470PF	10%	500V	D613	8-719-920-68	DIODE ESAB92-02			
C837	1-129-702-00	FILM	0.001MF	10%	400V	D614	8-719-920-68	DIODE ESAB92-02			
C838	1-129-725-00	FILM	0.082MF	10%	250V	D616	8-719-110-31	DIODE RD12ES-B2			
C839	1-123-950-00	ELECT	47MF	20%	250V	D619	8-719-400-18	DIODE MA152WK			
C840	1-124-480-11	ELECT	470MF	20%	25V	D620	8-719-911-19	DIODE ISS119			
C841	1-102-228-00	CERAMIC	470PF	10%	500V	D624	8-719-312-40	DIODE R2K			
C842	1-104-722-91	FILM	0.068MF	10%	250V	D801	8-719-018-82	DIODE RGP02-20EL-6394			
C846	1-123-024-21	ELECT	33MF	10%	160V	D802	8-719-300-33	DIODE RU-3AM			
C851	1-136-559-11	MYLAR	0.0047MF	10%	400V	D804	8-719-400-18	DIODE MA152WK			
C852	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V	D808	8-719-109-88	DIODE RD5.6ES-B1			
C853	1-124-910-11	ELECT	47MF	20%	50V	D809	8-719-110-03	DIODE RD7.5ES-B2			
C854	△1-162-115-91	CERAMIC	330PF	10%	2KV	D812	8-719-908-03	DIODE GP08D			
C857	1-124-902-00	ELECT	0.47MF	20%	50V	D813	8-719-908-03	DIODE GP08D			
C861	1-130-777-00	FILM	0.1MF	5%	63V	D814	8-719-979-85	DIODE EGP20G			
C863	1-106-383-00	MYLAR	0.047MF	10%	100V	D815	8-719-300-33	DIODE RU-3AM			
C866	1-129-702-00	FILM	0.001MF	10%	400V	D816	8-719-979-85	DIODE EGP20G			
C868	1-137-371-11	FILM	0.015MF	5%	50V	D818	8-719-109-93	DIODE RD6.2ES-B2			
C869	1-136-165-00	FILM	0.1MF	5%	50V	D821	8-719-400-18	DIODE MA152WK			

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK		
D822	8-719-982-20	DIODE MTZJ-30B		Q805	8-729-216-22	TRANSISTOR 2SA1162-G			
D824	8-719-976-64	DIODE RGP02-17		Q806	8-729-019-71	TRANSISTOR 2SK1916-53-F50			
D825	8-719-400-18	DIODE MA152WK		Q807	8-729-119-80	TRANSISTOR 2SC2688-LK			
D826	8-719-400-18	DIODE MA152WK		Q812	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R			
D827	8-719-983-50	DIODE MTZJ-T-72-2.2A		Q813	8-729-140-96	TRANSISTOR 2SD774-34			
D828	8-719-911-19	DIODE 1SS119		Q818	8-729-216-22	TRANSISTOR 2SA1162-G			
D830	8-719-400-18	DIODE MA152WK		Q1501	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R			
D831	8-719-400-18	DIODE MA152WK		Q1502	8-729-901-01	TRANSISTOR DTC144EK			
D832	8-719-400-18	DIODE MA152WK		Q1503	8-729-216-22	TRANSISTOR 2SA1162-G			
D833	8-719-400-18	DIODE MA152WK		Q1504	8-729-901-01	TRANSISTOR DTC144EK			
D1501	8-719-400-18	DIODE MA152WK		<RESISTOR>					
D1503	8-719-908-03	DIODE GP08D		JR001	1-216-295-00	METAL GLAZE 0 5% 1/10W			
D1504	8-719-930-14	DIODE HZS3.6NB1TD		JR002	1-216-295-00	METAL GLAZE 0 5% 1/10W			
<IC>									
IC601	8-759-073-29	IC TDA4605-3		JR003	1-216-295-00	METAL GLAZE 0 5% 1/10W			
IC602	8-759-908-15	IC TL431CLP		JR004	1-216-295-00	METAL GLAZE 0 5% 1/10W			
IC603 Δ	8-749-923-44	IC SFH617G-1		JR005	1-216-295-00	METAL GLAZE 0 5% 1/10W			
IC801	8-759-987-16	IC LM393P		JR006	1-216-295-00	METAL GLAZE 0 5% 1/10W			
IC802	8-759-987-16	IC LM393P		JR500	1-216-296-00	METAL GLAZE 0 5% 1/8W			
IC803	8-759-081-31	IC MC78L12ACPRP		JR501	1-216-296-00	METAL GLAZE 0 5% 1/8W			
IC1501	8-759-506-46	IC TDA8179S		JR502	1-216-296-00	METAL GLAZE 0 5% 1/8W			
<COIL>									
L602	1-410-397-21	FERRITE BEAD INDUCTOR		JR503	1-216-296-00	METAL GLAZE 0 5% 1/8W			
L603	1-410-396-41	FERRITE BEAD INDUCTOR		JR504	1-216-296-00	METAL GLAZE 0 5% 1/8W			
L604	1-410-396-41	FERRITE BEAD INDUCTOR		JR505	1-216-296-00	METAL GLAZE 0 5% 1/8W			
L605	1-459-442-00	COIL (WITH CORE)		JR506	1-216-296-00	METAL GLAZE 0 5% 1/8W			
L606	1-459-442-00	COIL (WITH CORE)		JR507	1-216-296-00	METAL GLAZE 0 5% 1/8W			
L610	1-410-397-21	FERRITE BEAD INDUCTOR		JR508	1-216-296-00	METAL GLAZE 0 5% 1/8W			
L622	1-412-533-21	INDUCTOR 47UH		JR509	1-216-296-00	METAL GLAZE 0 5% 1/8W			
L623	1-412-533-21	INDUCTOR 47UH		JR510	1-216-296-00	METAL GLAZE 0 5% 1/8W			
L803	1-420-872-00	COIL, AIR CORE		JR511	1-216-296-00	METAL GLAZE 0 5% 1/8W			
L804	1-410-396-41	FERRITE BEAD INDUCTOR		R601	1-216-360-11	METAL OXIDE 8.2 5% 1W F			
L808	1-412-549-11	INDUCTOR 1MMH		R602	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W F			
L809	1-459-104-00	COIL, WITH CORE		R603	1-215-901-00	METAL OXIDE 33K 5% 2W F			
L810	1-460-197-21	COIL, FERRITE (PMC)		R604	1-260-200-11	CARBON 240K 5% 1/2W			
L811	1-412-519-11	INDUCTOR 3.3UH		R605	1-216-313-00	METAL GLAZE 8.2 5% 1/10W			
L812	1-412-519-11	INDUCTOR 3.3UH		R606	1-216-033-00	METAL GLAZE 220 5% 1/10W			
L813	1-412-519-11	INDUCTOR 3.3UH		R607	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W			
L817	1-460-196-11	COIL, HORIZONTAL LINEARITY		R608	1-215-928-11	METAL OXIDE 68K 5% 3W F			
L1501	1-412-531-31	INDUCTOR 33UH		R609	1-216-005-00	METAL GLAZE 15 5% 1/10W			
L1502	1-412-525-21	INDUCTOR 10UH		R610	1-247-881-00	CARBON 120K 5% 1/4W			
L1503	1-412-531-31	INDUCTOR 33UH		R611	1-249-405-11	CARBON 100 5% 1/4W			
<IC LINK>									
PS601 Δ	1-532-686-91	LINK, IC 2.7A		R612	1-247-894-11	CARBON 430K 5% 1/4W			
PS602 Δ	1-532-686-91	LINK, IC 2.7A		R613	1-216-260-00	METAL GLAZE 390K 5% 1/8W			
PS603 Δ	1-532-686-91	LINK, IC 2.7A		R614	1-216-487-11	METAL OXIDE 12K 5% 3W F			
PS604 Δ	1-532-686-91	LINK, IC 2.7A		R615	1-216-487-11	METAL OXIDE 12K 5% 3W F			
<TRANSISTOR>									
Q601	8-729-016-14	TRANSISTOR BUZ91A-E3155		R616	1-216-033-00	METAL GLAZE 220 5% 1/10W			
Q602	8-729-177-22	TRANSISTOR 2SB772-Q		R617	1-216-449-11	METAL OXIDE 56 5% 2W F			
Q603	8-729-900-53	TRANSISTOR DTC114EK		R618	1-216-449-11	METAL OXIDE 56 5% 2W F			
Q611	8-729-119-78	TRANSISTOR 2SC2785-HFE		R620	1-216-045-00	METAL GLAZE 680 5% 1/10W			
Q612	8-729-903-29	TRANSISTOR DTA144TK		R621	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W			
Q613	8-729-216-22	TRANSISTOR 2SA1162-G		R622	1-216-041-00	METAL GLAZE 470 5% 1/10W			
Q801	8-729-016-32	TRANSISTOR 2SC4927-01		R623	1-216-073-00	METAL GLAZE 10K 5% 1/10W			
Q802	8-729-140-97	TRANSISTOR 2SB734-34		R625	1-216-449-11	METAL OXIDE 56 5% 2W F			
Q804	8-729-216-22	TRANSISTOR 2SA1162-G		R626	1-216-635-11	METAL CHIP 220 0.50% 1/10W			
				R627	1-249-398-11	CARBON 27 5% 1/4W F			
				R629	1-215-464-00	METAL 62K 1% 1/4W			
				R630	1-249-421-11	CARBON 2.2K 5% 1/4W			
				R631	1-216-397-11	METAL OXIDE 4.7 5% 3W F			
				R633	1-249-415-11	CARBON 680 5% 1/4W			
				R634	1-215-477-00	METAL 220K 1% 1/4W			
				R635	1-216-073-00	METAL GLAZE 10K 5% 1/10W			
				R636	1-216-452-11	METAL OXIDE 180 5% 2W F			
				R637	1-216-113-00	METAL GLAZE 470K 5% 1/10W			

D H1

REF. NO. PART NO.

DESCRIPTION

REMARK

R638	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R639	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R640	1-207-905-00	WIREWOUND	0.27	10%	2W	F
R645	1-215-464-00	METAL	62K	1%	1/4W	
R646	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R647	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R651	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R801	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R802	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R804	1-217-778-11	FUSIBLE	1K	5%	1W	F
R805	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R806	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R807	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R808	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R809	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R811	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R812	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R813	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R814	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R815	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R819	1-247-755-11	CARBON	1.8K	5%	1/2W	F
R820	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R821	1-215-918-00	METAL OXIDE	1.5K	5%	3W	F
R822	1-215-918-00	METAL OXIDE	1.5K	5%	3W	F
R823	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R824	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R825	1-216-345-11	METAL OXIDE	0.47	5%	1W	F
R826	1-216-166-00	METAL GLAZE	47	5%	1/8W	
R828	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R829	1-249-429-11	CARBON	10K	5%	1/4W	F
R830	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R832	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R833	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R834	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R835	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R836	1-216-242-00	METAL GLAZE	68K	5%	1/8W	
R837	1-216-695-11	METAL CHIP	68K	0.50%	1/10W	
R838	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R839	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R841	1-249-397-11	CARBON	22	5%	1/4W	F
R842	1-215-890-11	METAL OXIDE	470	5%	2W	F
R846	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R847	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R849	1-215-908-00	METAL OXIDE	33	5%	3W	F
R851	1-247-743-11	CARBON	220	5%	1/2W	F
R852	1-249-389-11	CARBON	4.7	5%	1/4W	F
R853	1-249-443-11	CARBON	0.47	5%	1/4W	F
R854	1-249-443-11	CARBON	0.47	5%	1/4W	F
R855	1-202-818-00	SOLID	1K	10%	1/2W	
R858	1-249-425-11	CARBON	4.7K	5%	1/4W	
R864	1-216-686-11	METAL CHIP	30K	0.50%	1/10W	
R865	1-215-493-00	METAL	1M	1%	1/4W	
R866	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R867	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R868	1-249-435-11	CARBON	33K	5%	1/4W	
R871	1-249-493-11	CARBON	56K	5%	1/2W	
R872	1-249-393-11	CARBON	10	5%	1/4W	F
R873	1-249-393-11	CARBON	10	5%	1/4W	F
R876	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R877	1-215-880-00	METAL OXIDE	10	5%	2W	F
R878	1-215-883-11	METAL OXIDE	33	5%	2W	F
R884	1-216-693-11	METAL CHIP	56K	0.50%	1/10W	
R889	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R893	1-215-878-00	METAL OXIDE	33K	5%	1W	F

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Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R894	1-216-264-00	METAL GLAZE		R895	1-216-079-00	METAL GLAZE	560K 5% 1/8W
R895	1-216-079-00	METAL GLAZE		R897	1-216-089-00	METAL GLAZE	18K 5% 1/10W
R897	1-216-262-00	METAL GLAZE		R898	1-216-262-00	METAL GLAZE	47K 5% 1/8W
R898	1-216-673-11	METAL CHIP		R1501	1-216-673-11	METAL CHIP	4.7K 0.50% 1/10W
R1501	1-216-665-11	METAL CHIP		R1502	1-216-665-11	METAL CHIP	3.9K 0.50% 1/10W
R1502	1-216-684-11	METAL CHIP		R1503	1-216-065-00	METAL GLAZE	22K 5% 1/10W
R1503	1-216-081-00	METAL GLAZE		R1504	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R1504	1-216-081-00	METAL GLAZE		R1505	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R1505	1-216-684-11	METAL CHIP		R1508	1-216-684-11	METAL CHIP	24K 0.50% 1/10W
R1508	1-216-091-00	METAL GLAZE		R1509	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R1509	1-249-382-11	CARBON		R1510	1-249-382-11	CARBON	1.2 5% 1/4W F
R1510	1-215-887-00	METAL OXIDE		R1511	1-215-887-00	METAL OXIDE	150 5% 2W F
R1511	1-216-371-00	METAL OXIDE		R1512	1-216-371-00	METAL OXIDE	1.5 5% 2W F
R1512	1-216-049-00	METAL GLAZE		R1514	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R1514	1-216-065-00	METAL GLAZE		R1551	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
<VARIABLE RESISTOR>							
RV601 1-241-628-11 RES, ADJ, CARBON 2.2K							
<TRANSFORMER>							
T601 1-450-997-11 S.R.T. (SMT) T801 1-453-118-11 TRANSFORMER ASSY, FLYBACK (UX-2600A2) T803 1-437-090-00 HDT							

*1-643-004-11 H1 BOARD *****							
<CAPACITOR>							
C083 1-163-037-11 CERAMIC CHIP 0.022MF 10% 25V C087 1-163-037-11 CERAMIC CHIP 0.022MF 10% 25V							
<CONNECTOR>							
CN1008*1-564-516-11 PLUG, CONNECTOR 13P							
<JACK>							
J81 1-568-678-11 TERMINAL BLOCK, S 3P J82 1-562-837-11 JACK							
<COIL>							
L081 1-408-409-00 INDUCTOR 10UH L082 1-408-409-00 INDUCTOR 10UH							
<RESISTOR>							
JR021 1-216-295-00 METAL GLAZE 0 5% 1/10W R081 1-216-073-00 METAL GLAZE 10K 5% 1/10W R082 1-216-065-00 METAL GLAZE 4.7K 5% 1/10W R083 1-216-057-00 METAL GLAZE 2.2K 5% 1/10W R084 1-216-202-00 METAL GLAZE 1.5K 5% 1/8W							
R085 1-216-202-00 METAL GLAZE 1.5K 5% 1/8W							

H1	H2	J
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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK	
<SWITCH>								
S081	1-571-532-21	SWITCH, TACTIL		D903	8-719-921-69	DIODE MTZJ-9.1		
S082	1-571-532-21	SWITCH, TACTIL		D904	8-719-921-69	DIODE MTZJ-9.1		
S083	1-571-532-21	SWITCH, TACTIL		D907	8-719-921-69	DIODE MTZJ-9.1		

*1-642-997-11	H2 BOARD		*****	D910	8-719-921-69	DIODE MTZJ-9.1		
*4-201-076-01 HOLDER, LED								
*4-374-987-01	GUIDE, LIGHT			D911	8-719-921-69	DIODE MTZJ-9.1		
4-381-686-01	BRACKET (B), LIGHT GUIDE			D912	8-719-921-69	DIODE MTZJ-9.1		

<CONNECTOR>								
CN1132*	1-568-882-51	PIN, CONNECTOR 7P		D913	8-719-921-69	DIODE MTZJ-9.1		

<DIODE>								
D092	8-719-948-31	DIODE LD-201VR		D914	8-719-921-69	DIODE MTZJ-9.1		
D093	8-719-948-31	DIODE LD-201VR		D915	8-719-921-69	DIODE MTZJ-9.1		
D094	8-719-948-31	DIODE LD-201VR		D916	8-719-921-69	DIODE MTZJ-9.1		

<IC>								
IC091	8-741-101-75	IC SBX1610-11		J903	1-561-534-41	SOCKET, PIN 21P		

*A-1651-040-A	J BOARD, COMPLETE		*****	J905	1-695-293-11	SOCKET 21P		

<CAPACITOR>								
C281	1-126-103-11	ELECT	470MF	20%	16V	Q281	8-729-901-81	TRANSISTOR 2SC2412K-T-146-I
C293	1-101-003-00	CERAMIC	0.0047MF		50V	Q282	8-729-901-81	TRANSISTOR 2SC2412K-T-146-I
C294	1-101-003-00	CERAMIC	0.0047MF		50V			
C295	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	L281	1-402-711-11	INDUCTOR, WIDEBAND
C296	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	L282	1-402-711-11	INDUCTOR, WIDEBAND

<TRANSISTOR>								
C906	1-101-004-00	CERAMIC	0.01MF		50V	JR901	1-216-295-00	METAL GLAZE 0 5% V10W
C910	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	JR906	1-216-295-00	METAL GLAZE 0 5% V10W
C911	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	JR915	1-216-295-00	METAL GLAZE 0 5% V10W
C912	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	JR917	1-216-296-00	METAL GLAZE 0 5% V8W
C913	1-163-133-00	CERAMIC CHIP	470PF	5%	50V	JR918	1-216-295-00	METAL GLAZE 0 5% V10W
<RESISTOR>								
C914	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	JR919	1-216-296-00	METAL GLAZE 0 5% V8W
C915	1-163-121-00	CERAMIC CHIP	150PF	5%	50V	JR920	1-216-295-00	METAL GLAZE 0 5% V10W
C916	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	JR921	1-216-295-00	METAL GLAZE 0 5% V10W
C917	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V	JR924	1-216-296-00	METAL GLAZE 0 5% V8W
C922	1-124-477-11	ELECT	47MF	20%	16V	JR926	1-216-296-00	METAL GLAZE 0 5% V8W
<CONNECTOR>								
C923	1-164-346-11	CERAMIC CHIP	1MF		16V	JR927	1-216-296-00	METAL GLAZE 0 5% V8W
C924	1-124-477-11	ELECT	47MF	20%	16V	JR928	1-216-296-00	METAL GLAZE 0 5% V8W
C925	1-124-477-11	ELECT	47MF	20%	16V	JR935	1-216-296-00	METAL GLAZE 0 5% V8W
C926	1-164-346-11	CERAMIC CHIP	1MF		16V	JR940	1-216-296-00	METAL GLAZE 0 5% V8W
C927	1-124-477-11	ELECT	47MF	20%	16V	JR942	1-216-296-00	METAL GLAZE 0 5% V8W
<TRANSISTOR>								
C928	1-124-477-11	ELECT	47MF	20%	16V	JR952	1-216-296-00	METAL GLAZE 0 5% V8W
C929	1-124-477-11	ELECT	47MF	20%	16V	JR954	1-216-295-00	METAL GLAZE 0 5% V10W
C930	1-124-477-11	ELECT	47MF	20%	16V	JR955	1-216-295-00	METAL GLAZE 0 5% V10W
C931	1-164-346-11	CERAMIC CHIP	1MF		16V	JR956	1-216-295-00	METAL GLAZE 0 5% V10W
C932	1-164-346-11	CERAMIC CHIP	1MF		16V	JR957	1-216-295-00	METAL GLAZE 0 5% V10W
<CONNECTOR>								
CN1209	1-695-302-11	CONNECTOR, BOARD TO BOARD 50P		R282	1-216-073-00	METAL GLAZE 10K 5% V10W		
CN1233*	1-564-518-11	PLUG, CONNECTOR 3P		R283	1-216-073-00	METAL GLAZE 10K 5% V10W		
<RESISTOR>								
R284								
R287								
R288								
R289								

J V

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK	
R290	1-216-216-00	METAL GLAZE	5.6K 5%	1/8W	*A-1645-024-A	V BOARD, COMPLETE	*****	
R291	1-249-413-11	CARBON	470 5%	1/4W				
R292	1-249-413-11	CARBON	470 5%	1/4W				
R907	1-216-029-00	METAL GLAZE	150 5%	1/10W				
R908	1-216-029-00	METAL GLAZE	150 5%	1/10W				
						<CAPACITOR>		
R911	1-216-022-00	METAL GLAZE	75 5%	1/10W	C01	1-124-916-11	ELECT 22MF	20% 50V
R913	1-216-063-00	METAL GLAZE	3.9K 5%	1/10W	C02	1-163-038-00	CERAMIC CHIP 0.1MF	25V
R914	1-216-063-00	METAL GLAZE	3.9K 5%	1/10W	C03	1-163-038-00	CERAMIC CHIP 0.1MF	25V
R919	1-216-063-00	METAL GLAZE	3.9K 5%	1/10W	C04	1-124-916-11	ELECT 22MF	20% 50V
R920	1-216-063-00	METAL GLAZE	3.9K 5%	1/10W	C05	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V
R921	1-216-022-00	METAL GLAZE	75 5%	1/10W	C06	1-124-120-11	ELECT 220MF	20% 16V
R922	1-216-222-00	METAL GLAZE	10K 5%	1/8W	C07	1-124-903-11	ELECT 1MF	20% 50V
R923	1-216-039-00	METAL GLAZE	390 5%	1/10W	C08	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
R924	1-216-039-00	METAL GLAZE	390 5%	1/10W	C09	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V
R925	1-216-089-00	METAL GLAZE	47K 5%	1/10W	C10	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
R926	1-216-039-00	METAL GLAZE	390 5%	1/10W	C11	1-163-037-11	CERAMIC CHIP 0.022MF	10% 25V
R927	1-216-039-00	METAL GLAZE	390 5%	1/10W	C12	1-163-127-00	CERAMIC CHIP 270PF	5% 50V
R928	1-216-089-00	METAL GLAZE	47K 5%	1/10W	C13	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
R929	1-216-063-00	METAL GLAZE	3.9K 5%	1/10W	C14	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
R930	1-216-113-00	METAL GLAZE	470K 5%	1/10W	C15	1-163-103-00	CERAMIC CHIP 27PF	5% 50V
R931	1-216-212-00	METAL GLAZE	3.9K 5%	1/8W	C16	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
R932	1-216-113-00	METAL GLAZE	470K 5%	1/10W	C17	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
R933	1-216-073-00	METAL GLAZE	10K 5%	1/10W	C18	1-163-093-00	CERAMIC CHIP 10PF	5% 50V
R934	1-216-063-00	METAL GLAZE	3.9K 5%	1/10W	C19	1-163-089-00	CERAMIC CHIP 6PF	0.25PF 50V
R935	1-216-022-00	METAL GLAZE	75 5%	1/10W	C20	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
R936	1-216-022-00	METAL GLAZE	75 5%	1/10W	C21	1-163-833-00	CERAMIC CHIP 0.068MF	25V
R937	1-216-113-00	METAL GLAZE	470K 5%	1/10W	C22	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
R938	1-216-039-00	METAL GLAZE	390 5%	1/10W	C23	1-163-210-00	CERAMIC CHIP 0.0016MF	5% 50V
R939	1-216-188-00	METAL GLAZE	390 5%	1/8W	C24	1-164-505-11	CERAMIC CHIP 2.2MF	16V
R940	1-216-063-00	METAL GLAZE	3.9K 5%	1/10W	C25	1-164-505-11	CERAMIC CHIP 2.2MF	16V
R941	1-216-113-00	METAL GLAZE	470K 5%	1/10W	C26	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
R942	1-216-188-00	METAL GLAZE	390 5%	1/8W	C28	1-163-137-00	CERAMIC CHIP 680PF	5% 50V
R943	1-216-089-00	METAL GLAZE	47K 5%	1/10W	C30	1-136-171-00	FILM 0.33MF	5% 50V
R944	1-216-188-00	METAL GLAZE	390 5%	1/8W	C32	1-163-038-00	CERAMIC CHIP 0.1MF	25V
R945	1-216-089-00	METAL GLAZE	47K 5%	1/10W	C33	1-124-910-11	ELECT 47MF	20% 50V
R947	1-216-029-00	METAL GLAZE	150 5%	1/10W	C34	1-124-907-11	ELECT 10MF	20% 50V
R950	1-216-063-00	METAL GLAZE	3.9K 5%	1/10W	C35	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
R951	1-216-063-00	METAL GLAZE	3.9K 5%	1/10W	C36	1-163-239-11	CERAMIC CHIP 33PF	5% 50V
R959	1-216-071-00	METAL GLAZE	8.2K 5%	1/10W	C37	1-216-295-00	METAL GLAZE 0	5% 1/10W
R960	1-216-071-00	METAL GLAZE	8.2K 5%	1/10W	C39	1-163-135-00	CERAMIC CHIP 560PF	5% 50V
R965	1-216-029-00	METAL GLAZE	150 5%	1/10W	C40	1-163-263-11	CERAMIC CHIP 330PF	5% 50V
R966	1-216-029-00	METAL GLAZE	150 5%	1/10W	C53	1-163-038-00	CERAMIC CHIP 0.1MF	25V
R967	1-216-029-00	METAL GLAZE	150 5%	1/10W	C54	1-163-038-00	CERAMIC CHIP 0.1MF	25V
R968	1-216-063-00	METAL GLAZE	3.9K 5%	1/10W			<CONNECTOR>	
R969	1-216-063-00	METAL GLAZE	3.9K 5%	1/10W				
R970	1-216-063-00	METAL GLAZE	3.9K 5%	1/10W				
R971	1-216-063-00	METAL GLAZE	3.9K 5%	1/10W		CN1737*1-564-511-11	PLUG, CONNECTOR 8P	
R972	1-216-063-00	METAL GLAZE	3.9K 5%	1/10W		CN1741*1-564-511-11	PLUG, CONNECTOR 8P	
R973	1-216-063-00	METAL GLAZE	3.9K 5%	1/10W				
R974	1-216-063-00	METAL GLAZE	3.9K 5%	1/10W				
R975	1-216-063-00	METAL GLAZE	3.9K 5%	1/10W				
R976	1-216-063-00	METAL GLAZE	3.9K 5%	1/10W				
R977	1-216-063-00	METAL GLAZE	3.9K 5%	1/10W				



The components identified by shading and mark Δ are critical for safety.
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Ne les remplacer que par une pièce portant le numéro spécifié.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
<TRIMMER>											
CT01	1-141-418-11	CAP. ADJ		R10	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W				
				R11	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W				
				R12	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W				
				R13	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
				R15	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W				
<DIODE>											
D01	8-719-400-18	DIODE MA152WK		R16	1-216-033-00	METAL GLAZE	220 5% 1/10W				
D03	8-719-104-34	DIODE 1S2836		R17	1-216-033-00	METAL GLAZE	220 5% 1/10W				
D04	8-719-104-34	DIODE 1S2836		R20	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
D09	8-719-400-18	DIODE MA152WK		R21	1-216-049-00	METAL GLAZE	1K 5% 1/10W				
D10	8-719-400-18	DIODE MA152WK		R22	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W				
D11	8-719-400-18	DIODE MA152WK		R23	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
D12	8-719-400-18	DIODE MA152WK		R24	1-216-091-00	METAL GLAZE	56K 5% 1/10W				
				R25	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W				
				R26	1-216-081-00	METAL GLAZE	22K 5% 1/10W				
				R27	1-216-043-00	METAL GLAZE	560 5% 1/10W				
<IC>											
IC01	8-759-166-41	IC SDA5248-2C1		R28	1-216-043-00	METAL GLAZE	560 5% 1/10W				
IC02	8-759-037-64	IC SDA5231-2		R29	1-216-043-00	METAL GLAZE	560 5% 1/10W				
IC03	8-759-035-39	IC MCM514256AP80		R30	1-216-037-00	METAL GLAZE	330 5% 1/10W				
IC04	8-752-353-39	IC CXD1050A-15P		R31	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W				
IC05	8-759-987-16	IC LM393P		R32	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
<COIL>											
L01	1-408-411-00	INDUCTOR	15UH	R33	1-216-017-00	METAL GLAZE	47 5% 1/10W				
L02	1-408-414-00	INDUCTOR	27UH	R34	1-216-081-00	METAL GLAZE	22K 5% 1/10W				
L03	1-408-417-00	INDUCTOR	47UH	R35	1-216-081-00	METAL GLAZE	22K 5% 1/10W				
L04	1-408-413-00	INDUCTOR	22UH	R36	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W				
L05	1-408-409-00	INDUCTOR	10UH	R37	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W				
<TRANSISTOR>											
Q01	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R43	1-216-033-00	METAL GLAZE	220 5% 1/10W				
Q03	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R44	1-216-033-00	METAL GLAZE	220 5% 1/10W				
Q04	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R46	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
Q06	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R47	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W				
Q07	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R48	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W				
Q08	8-729-216-22	TRANSISTOR 2SA1622-G		R49	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W				
Q09	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R50	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W				
Q10	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R54	1-216-073-00	METAL GLAZE	10K 5% 1/10W				
Q11	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R55	1-216-069-00	METAL GLAZE	6.8K 5% 1/10W				
Q12	8-729-901-00	TRANSISTOR DTC124EK		R56	1-216-667-11	METAL CHIP	4.7K 0.50% 1/10W				
<RESISTOR>											
JR02	1-216-295-00	METAL GLAZE	0 5% 1/10W	<CRYSTAL>							
R01	1-216-025-00	METAL GLAZE	100 5% 1/10W	X02	1-567-495-11	OSCILLATOR, CRYSTAL					
R02	1-216-025-00	METAL GLAZE	100 5% 1/10W	*****							
R03	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W	MISCELLANEOUS							
R04	1-216-049-00	METAL GLAZE	1K 5% 1/10W	*****							
R05	1-216-041-00	METAL GLAZE	470 5% 1/10W	Δ I-402-746-21 COIL DEGAUSSING							
R06	1-216-029-00	METAL GLAZE	150 5% 1/10W	Δ I-451-311-21 DEFLECTION Yoke (Y25FXA)							
R07	1-216-041-00	METAL GLAZE	470 5% 1/10W	1-452-032-00 MAGNET, DISK; 10MM ϕ							
R08	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	1-452-094-00 MAGNET, ROTATABLE DISK; 15MM ϕ							
R09	1-216-091-00	METAL GLAZE	56K 5% 1/10W	0-550-040-01 SPEAKER							

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The components identified by shading and mark  are critical for safety.
Replace only with part number specified.

REF. NO. PART NO.	DESCRIPTION	REMARK
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 1-690-296-11 CORD, POWER (WITH NOISE FILTER)
(KV-B2511A, B2511B, B2511D, B2511K, B2513E)

 1-590-762-11 CORD, POWER (WITH PLUG) (KV-B2512U)

V901  8-733-231-05 PICTURE TUBE (A59JWC61X)

ACCESSORIES AND PACKING MATERIALS

4-202-183-41 MANUAL, INSTRUCTION (KV-B2511A)
4-202-183-81 MANUAL, INSTRUCTION (KV-B2511B)
4-202-183-11 MANUAL, INSTRUCTION (KV-B2511D)
4-202-183-91 MANUAL, INSTRUCTION (KV-B2511K)
4-202-183-61 MANUAL, INSTRUCTION (KV-B2512U)

4-202-183-71 MANUAL, INSTRUCTION (KV-B2513E)
4-202-255-81 MANUAL, INSTRUCTION (KV-B2513E)
*4-039-171-01 INDIVIDUAL CARTON
*4-039-172-01 CUSHION (UPPER) (ASSY)
*4-039-173-01 CUSHION (LOWER) (ASSY)

*4-396-065-01 BAG, PROTECTION

REMOTE COMMANDER

1-693-176-11 REMOTE COMMANDER (RM-830)
9-903-466-01 POCKET COVER (FOR RM-830)